Technology Audit
Edina Public Schools

Final Report November 3, 2009

Prepared and Presented by Lee Whitcraft
School Technology Solutions, LLC

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Acknowledgements

Thank you to Dr. Ric Dressen for selecting School Technology Solutions to conduct the technology audit and providing open access to district staff resources. I want to thank the 37 staff, parents and school board members who were interviewed for their time and candid discussions. Thank you to Dr. Jenni Norland-Weaver for superbly coordinating and scheduling all of the interviews.

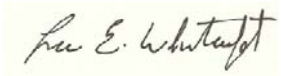
It is clear that Edina Public Schools is a leader not only in Minnesota but also in the United States as marked by the outstanding achievement of their students. The school district is committed to continuous improvement by using student achievement data and the information it provides to build plans to further improve student performance. The Student Learning Plan initiative is an example of using technology to bring together large amounts of student achievement data and present it to teachers in a simplified online form. The learning plans are individualized with goals and measures that can be easily shared with students and teachers.

"Project lead the way" represents the school's Science, Technology, Engineering and Math program(STEM) program providing students the opportunity to increase their interest and knowledge in these scientific fields using various technology tools.

Finally, it is clear that the school district is committed to teaching and developing the student's skills to meet the 21st century challenges.

Again thanks to the administration for supporting the technology audit process and the staff, parents and school board members that contributed to the outcome of this process.

Sincerely,



Lee Whitcraft, President
School Technology Solutions

Executive Summary

Purpose

The technology audit will provide a review of four areas that impact effective technology deployment including documenting current technology use and recommendations provided to maximize the effectiveness of current and future technology implementations.

Infrastructure: School's internal network, external network, servers, staff and student computers

Organization: Review of technology department staff responsible for technology support

Operations: The procedures, practices and documentation surrounding the management of the school's technology resources.

Curriculum and Management Technology Initiatives: Where is the school currently integrating technology in their curriculum, and how are results measured.

Key Findings

Infrastructure

The network infrastructure is sound and with good emergency power backup. This has provided a reliable network for staff. The completion of wireless at the high school and the expansion in progress to the middle schools has provided mobile computing access to staff and students.
The district still faces challenges in replacing older equipment and software upgrades while trying to expand new technology initiatives. These challenges are highlighted below:

Positives:

- High speed inter-building network
- Building core network is sound
- Excellent emergency backup for servers and network equipment
- Limiting workstations to one operating system platform has minimized support costs
- Servers aggregated at the district office
- Student to instructional computer ratio is approximately 3:1
- Projectors ceiling mounted in each classroom
- Piloting of classroom sound enhancement systems
- Wireless at the secondary schools

Areas noted for improvement:

- 70% of network electronics are over 5 years old
- 25% of instructional computers are five or more yeas old
- 56% of servers are five or more years old
- 99% of printers are five or more years old
- No easy guest access to the wireless network
- No remote access by staff or students to their work stored on district servers
- Operating systems and office productivity tools need to be upgraded

Organization

The DMTS support organization has been challenged by the growth in the number of computers, software and other technologies they support today. The organization structure needs to be examined and support responsibilities clearly defined and the technical and soft skill sets required of each position. A new technology plan needs to be developed in preparation to meet state guidelines this next year but more importantly to articulate the value and future technology needs of the district to support any technology levy funding in the future.

Positives:

- Facilitated and following the fiscal year '08- '12 technology plan that is in its third year
- Director of DMTS works closely with the Director of Teaching and Learning
- Director has managed major changes in technology introduction in the district and schools

Areas noted for improvement:

- Review and update Director of IT position description including structural department changes
- Review and update all DMTS job descriptions/support organization structure
- Update and implement new help desk procedure
- Develop a future infrastructure roadmap identifying all costs
- Need for increased project management and network engineer talents

Operations Processes

The DMTS support organization has implemented a number of best practices to insure a reliable and safe school technology environment. There is an excellent data backup plan and emergency power backup that is documented. The district uses network and server monitoring tools to proactively see and react to network related problems.
The area that needs the most improvement is the help desk processes. It is clear that customer expectations are not being met by the help desk.

Positives:

- Data backup plan documented and tested
- Mission critical student, financial, H-R data is backed up by TIES(SAS70 audit)
- DMTS uses What's Up Gold to monitor server status
- DTMS uses software to monitor network intrusion
- There is documentation of the districts wide and local area network
- Procedures exist for adding/removing teachers and students access to the network
- Network security is audited every two years, last network audit 2008, wireless 4/2009

Areas noted for improvement:

- Help desk processes
- Department review based on skill requirements by functional support area
- Fully document all custom database programming

Curriculum/Management Technology Initiatives

Edina Public schools has many learning initiatives that integrate technology into the curriculum. The staff have numerous opportunities for staff development and are supported by an excellent core of instructional integrationists.
The Student Learning Plan initiative could easily provide national prominence showing how a variety of student performance measures can be brought together and displayed to teachers, students and parent in an easy to understand web form. With the addition of learning goals and strategies for each student, the ability to bring together teachers, parents and students focused on helping each student succeed is remarkable.

Positives:

- Student Learning Plan(SLP) initiative in Response To Intervention(RTI) identified schools
- S.T.E.M. Curriculum
- Implementing elementary grade book linked to parent academic portal(Schoolview)
- 1 to 1 pilot initiative
- Sharing of Smartboard developed curriculum between schools
- Numerous staff development opportunities
- Use of technology integrationists to train/support teacher's technology integration initiatives
- Use of Community of Practice(COP) teacher teams to explore and prepare for new initiatives
- The use of Cognos at the high school to provide insight into student performance information
- Online learning opportunities for students to obtain instruction in courses not offered in the traditional schedule
- The use of Schoolview with TIES elementary grade book will provide teachers with critical school performance information on a timely basis

Areas noted for improvement

- Overall web presence for parents/students
- Planning process for innovative ideas
- Rethink 1 to 1 laptop deployment schedule
- Impact of online testing on available technology resources for student learning
- Review of online curriculum fees and outcomes

Findings and Recommendations

Infrastructure

Infrastructure positives:

- High speed inter-building network
- Building core network is sound
- The district server room is backed up by batteries and building generator
- School telecommunications closets are backed up by a building generator
- Limiting workstations to one operating system platform has minimized support costs
- Servers being aggregated at the district office
- Student to instructional computer ratio is approximately 3:1
- Projectors ceiling mounted in each classroom
- Piloting of classroom sound enhancement systems
- Wireless at the secondary schools

Finding: Approximately 70% of all network electronics are over five(5) years old. Network electronics of this age are far more subject to failures resulting in network access interruption. Most of the older electronics are used in classrooms to connect the student workstations. Network interruptions will cause teachers to rely less on these computers for student use if they are not reliably connected to instructional resources. (See Attachment I for summary inventories)

Recommendation: Although these electronics are being replaced it is important to have **a** project plan that details when these older network electronics will be replaced and how that replacement will be funded.

Finding: Of the instructional related desktop computers 26% are five or more years old.

Recommendation: Continue to replace the computers that are over five years old. The replacement plan should be on a project schedule identifying the oldest computers, when they will be replaced and the cost. Factors in the replacement decision should also include the expansion of the one to one laptop program that may eliminate the need for the older computers to be replaced and they may just be recycled.

Finding: Servers five years and older are 56% of the total servers. Servers of this age are more prone to failure and require more maintenance.

Recommendation: Develop a project plan to replace any server over four years old by migrating its applications and database to a virtual server environment. This project plan should be developed by a company with considerable experience in developing/documenting/implementing server virtualization projects. This project will reduce the current 39 servers that are being supported by district and contracted staff.

Finding: Approximately 99% of the printers in the district schools are five or more years old.

Recommendation: Develop a project plan with a timeline and cost to replace printers after determining printer requirements, location and cost. Document what is being done to reduce the amount of printing in each locations

Finding: All of the classroom TV/monitors are five or more years old.

Recommendation: When they need to be replaced, determine if they should be or if their classroom function being replaced by classroom projectors with access to video resources through VBrick, United Streaming and video/audio podcasting.

Finding: Staff working off-site need to access certain files on server storage within the district but do not have a process supported by the technology department to enable this capability.

Recommendations: There are multiple ways of securely allowing staff access to files they have stored in their folders on district housed servers. In the "Go Wireless" plan there is a reference to using Microsoft Sharepoint software to provide this functionality in 2010. It is not clear if this software is intended to provide remote access for the wireless laptop program or all staff/students that need access to files on district servers. Classes on Moodle or other online classroom management tools is another way to provided remote access. Provide a plan, with alternatives, to allow staff to access their server stored documents when off-site. The cost will be based on the number of staff needing this access and the cost of the alternatives to provide secure access.

Finding: Access to wireless networks at schools by visitors or students just needing access to internet requires the portable computing device to have a security certificate.

Recommendation: Provide internet access only by setting up a "guest" network pass-through no requiring security.

Finding: The current Microsoft server and Microsoft based workstation/laptop operating systems will be obsolete in the next year. The Microsoft productivity software will also become obsolete in the same timeframe.

Recommendation: A project plan needs to be developed that establishes a roadmap to upgrade the current server and workstation operating systems along with the current office productivity software.

Support Organization for Technology

The District Media and Technology Services(DMTS) provides support for all district administrative and management initiatives. The department is headed by the Director who is the leader of the department, and this position works closely with the Director of Teaching and Learning as the schools implement technology integration initiatives. The Director of DMTS is responsible for facilitating the development of the district technology plan. The long range technology plan provides the district direction as it implements technology to improve management processes and instructional outcomes. The DMTS director is responsible to assure that all technology implementations have the requisite hardware/software, staff development and support to insure that the technology meets the stated goals. The Director reports to the Superintendent

Support Organization Positives:

- Facilitated and following the fiscal year '08- '12 technology plan that is in its third year
- Director of DMTS works closely with the Director of Teaching and Learning
- Director has managed major changes in technology introduction in the district and schools

Finding: The Director of Media and Technology Services job description includes many responsibilities over a broad range of areas.

Recommendations: In reviewing the Director DMTS position the following recommendations are made:

(1) The school media specialists report solely to the school principals. The tech para's role will continue to provide first level of support for the school's technology and that the media specialist will request assistance from the district technology staff via the help desk as needed.
(2) The Technology Integration Specialists for the elementary schools and secondary schools should report to the Director of Teaching and Learning
(3) The role of the Technology Integration Specialist that supports the curriculum databases and training should be reviewed for proper organization placement.
(4) The Security system responsibly to be placed with the Director of Buildings and Grounds. Security door access and camera placement along with installation of other security components will be decided by the Director of Building and Grounds in close consultation with the building principal and the security service. Any servers to support the technology will be the responsibility of the IT Department.

These changes will allow the new IT Department director more time to focus on IT planning and ways to improve customer service for the upcoming year. With these recommended changes the IT department will need to work in close partnership with the schools and Teaching and Learning department to insure each party knows their role in supporting technology introductions.

Finding: Most position descriptions are over seven years old and in some cases not reflective of the type of work the technical support staff are doing.

Recommendation: Review all the position descriptions and define the positions not by the incumbent's strengths but by the work responsibilities of the position.

Finding: The help desk structure is not working for the benefit of its customers. Most problems are not being documented, tracked and there is little proactive customer notification of problem status. Most of the school media specialists call the person they believe will provide them with the fastest

support. This means when staff follow the correct procedure to email or log a problem they may not get served if the help desk personnel are answering direct calls from customers.

Recommendation: Adopt a revised set of help desk procedures after meeting with media specialists. The help desk procedures should set response time targets and problem escalation procedures. The school media specialist must be able to easily check the current status of any problem they input. Further the help desk software should be web based and allow for easy entry of problems in less than 45 seconds. Under only emergency conditions should the district help desk be called or if the internet is down and customers cannot enter problems in the help desk software. Help desk staff coming out to a school should only work on current problems and are not available to work on adhoc problems other staff may have. Monthly, the help desk supervisory should publish statistics on an internal site that documents the effectiveness of the department in supporting their customers.

Finding: There are numerous network servers that will require replacement due to age, software upgrades, and plans to move toward server consolidation. The district needs a project plan to get to server virtualization. Server virtualization is a relatively new technology that allows the movement of applications on two or more current servers to one larger server that can be "virtually" segmented. Currently there are two resources that support the servers, one fulltime Network Manager and a part time contracted person at the district two half days a week. These staffing resources will not be adequate to implement a plan for project virtualization.

Recommendation: There needs to be another high end, certified network specialist added to assist in the virtualization project. The district needs to contract with a firm to design and project manage the implementation of the new server virtualization network architecture. This will reduce the amount of servers to maintain. The current Network Manager will need extensive training to support the new environment.

Finding: The recommended Infrastructure Project Roadmap would require a strong project manager to oversee the planning and implementation of this project. From reading the DMTS job description there is no accountability or skill requirement for project management.

Recommendation: Once there is approval on the scope of an Infrastructure Project Roadmap a person with demonstrated project management skills should be hired or contracted to provide critical project management services

Operations Processes and Documentation

Positive Technical Operations processes:

- Data backup plan documented and tested
- Mission critical student, financial, H-R data is backed up by TIES
- TIES operation recently passed the rigorous SAS70 audit
- DMTS uses What's Up Gold to monitor server status
- DTMS uses software to monitor network intrusion
- There is documentation of the districts wide and local are network
- Procedures exist for adding/removing teachers and students access to the network
- Network security is audited every two years, last network audit 2008, wireless 4/2009

Finding: Help desk lacks process and procedures to provide effective customer service.

Recommendations: See recommendations under the support section of this tech audit.

Finding: Job descriptions are out of date and have no clear definitions of skill requirements and responsibilities assignments for each position.

Recommendation: Develop a support function matrix which lists support functions on one plane and skills required on the other plane. This will be a valuable tool to update the job descriptions and more clearly define the roles and responsibilities of the support staff. (See Attachment III)

Finding: There are at least 15 custom developed database programs that are maintained by one person most of which are minimally documented. If the person in charge of these programs is hurt or leaves suddenly it may be difficult for a new person to maintain these programs. (See Attachment IV)

Recommendation: Before any new databases or computer custom computer programs are developed a review of marketplace options and a recommendation of why the marketplace solutions will not work. A review of current custom databases/programs should be conducted to see if one or more marketplace solutions could replace these custom built solutions. Insure that the documentation for these programs is kept up to date

Curriculum and Management Technology Initiatives

Positive Curriculum and Management technology initiatives:

- Student Learning Plan(SLP) initiative in response to Intervention(RTI) identified schools
- Project Lead the Way S.T.E.M. curriculum
- Implementing elementary grade book linked to parent academic portal(Schoolview)
- 1 to 1 pilot initiative
- Sharing of Smartboard developed curriculum between schools
- Use of technology integrationists to train/support teacher's technology integration initiatives
- Numerous staff development opportunities
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- Online learning opportunities for students to obtain instruction in courses not offered in the traditional schedule
- The use of Schoolview with TIES elementary grade book will provide teaches with critical school performance information on a timely basis

Finding: One to one laptop program had a difficult start.

Recommendation: Review and document the reasons for the difficult start now while the issues are still fresh. It appears that there was inadequate time to test all laptop functions before the program was initiated. Starting a one to one program at the beginning of the school year is problematic for several reasons. The equipment usually arrives within three weeks before school starts. This is the busiest technology preparation time for setting up and testing computers for a new program. Students and teachers are very busy with normal school startup functions. Starting a one to one laptop program one to two months after the start of school allows more time for students to get beyond standardized testing and other beginning of school year activities.

Finding: The one to one laptop program was initiated as a pilot at South View Middle School for one section of 8^{th} grade. A concern for these students is that they may become disengaged as they move to 9^{th} grade next year and lose the laptops that they have been using in the curriculum the previous year.

Recommendation: Based on a pilot successful pilot assessment at the end of this year, the district should consider supporting laptops for 9^{th} grade South View M.S. students next year and adding laptops for both sections of 8^{th} grade at Valley View M. S. next year**.** Laptops should also be added to the other section of South View 8^{th} grade students next year**.**
Obviously there are budget issues and time for accelerated training for teachers that may impact how fast the district can move but having students with a laptop they use for a full year and then starting the next school year without one also poses learning engagement issues.

Finding: Nearly all schools media specialists complained that it takes approximately 45 days after school starts to add software updates to the student classroom computers.

Recommendation: At a meeting of the media specialists the Director of DMTS should review media specialist's documented issues that cause this amount of lag time with recommendations of how this problem can be eliminated.

Finding: The increasing online testing is taking the labs away from students as a curriculum tool. NWEA Map testing takes labs away from general school use for approximately eight weeks per year. The MCA Science test takes at least another week and the current department of education plane will transfer the remaining MCA tests from paper and pencil to online in the 2010-11 school year.

Recommendation: Review other options to insure that students will have access to computers to support their curricular needs. These options may include using more of the wireless cart based lab resources currently owned by the schools for curriculum projects. Consider how the in-classroom computers could be shared when these classes of students are taking the online tests. Lobby the Department of Education and legislature for additional technology funding by showing them evidence of how many computers, over what period of time, are used in the testing process. Finally, the positive of the online test process is that the teachers. administrators, parent and students do get nearly immediate feedback on test results.

Finding: Parents and students have to use different web views for school, classroom, academic performance information and different web based payment systems for lunch, various fee registration and community education registrations. This can be even more confusing for parents with students in elementary, middle and high schools.

Recommendation: Develop a basic web map that shows, from a parent's view, where they need to go to get web information about their students, assuming they have a student in elementary, middle and high school. Show the different payment systems and academic information systems they may have to use or have to log onto. Develop a parent portal that reduces the amount of times they need to login to different sites for student academic and payment systems. This process should have parent, the district Communications Department and IT Department involvement.

Finding: At the secondary schools, there is a feeling that the strict guidelines established by DMTS for technology implementation slows down their ability to innovate.

Recommendation: Innovative technology introductions should be accommodated through an approval process that includes the expected outcomes of the program, assessment measure, initial cost for hardware/software/staff development and support. In addition what are the long term costs should the program be expanded.

Finding: Students technology skills are not assessed in the elementary schools

Recommendation: There has been an assessment rubric developed it needs to be implemented.

Finding: There are a number of specialized subscription based software applications that have annual fees that are increasingly impacting budgets. Some examples are Read180, Plato, Naviance, ect…

Recommendation: Before committing to renewing these subscriptions there should be an accounting of the number of students using these programs and evidence documented of their value in meeting the learning objectives for which these programs were purchased.

The interview process included 37 interviews of 45 staff and parents.

Interviews Conducted

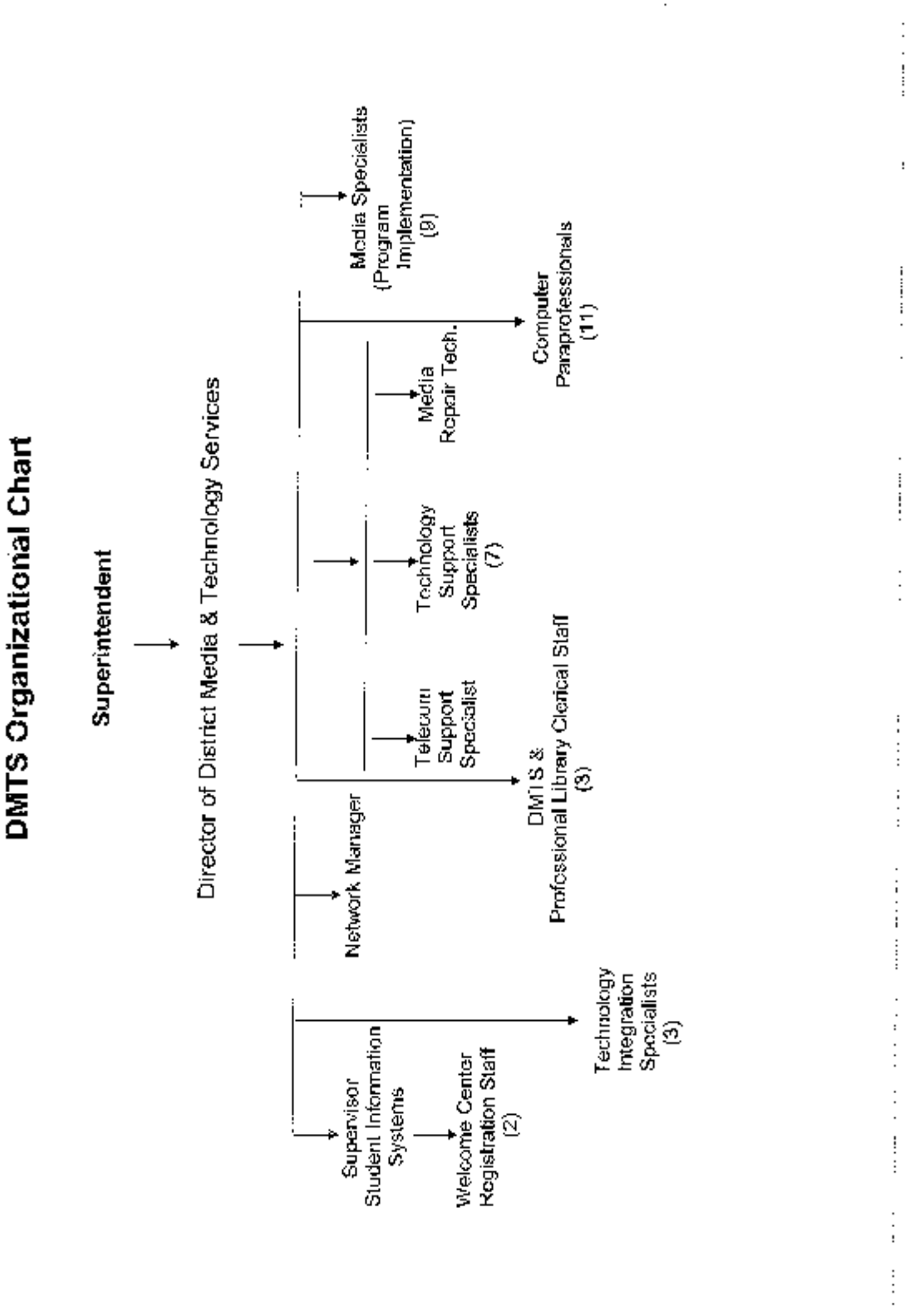
Name	Title	Date 2009	Time	Location
Ric Dressen, Ed. D.	Superintendent	9/29	11:00a	Supt Office
Jenni Norlin-Weaver, Ed D.	Dir. Teaching & Learning	9/29	11:00a	Supt Office
Bruce Locklear, Ed. D.	Principal	10/6	9:30a	Edina HS
John Soma	Assistant Principal	10/6	9:30a	Edina HS
Sara Swenson	Media Specialist	10/6	10:15	Edina HS
Rick Sansted	Principal	10/6	11:00a	Concord Elem
Laurie Holland	Media Specialist	10/6	11:30a	Concord Elem
Chris Holden	Principal	10/6	1:30p	Cornelia Elem
Sherron Gaughan	Media Specialist	10/6	2:00p	Cornelia Elem
Kari Dahlquist, Ph. D.	Principal	10/7	1:00p	Creek Valley Elem
Ann Peters		10/7	1:30p	Creek Valley Elem
Julie Hatzung	Principal	10/8	2:00p	Countryside Elem
Laura Mestler	Media Specialist	10/8	2:30p	Countryside Elem
Beth Russell, Ed. D.	Principal	10/9	7:30a	South View MS
Peter Hodne	Principal	10/9	9:00a	Highlands Elem
Lisa Dooley	Media Specialist	10/9	9:30a	Highlands Elem
Tracy Pearson	Media Specialist	10/9	11:00a	Normandale Elem
John Devince	Principal	10/9	noon	Normandale Elem
Shawn Dudley	Principal	10/9	1:00p	Valley View MS
Mary Elliot	Media Specialist	10/9	1:30p	Valley View MS
Randy Meyer, Idith Almog, Cathy Cella, Peyton Robb, Brian Hedberg	School Board Members	10/14	7:30a	Room 348A ECC
Bert Ledder	School Board Member	10/14	8:45a	Via Phone
Jenni Norlin-Weaver, Ed. D.	Dir Teaching &Learning	10/14	10:00a	T&L office
Scott Johnson	Tech Integration Specialist	10/14	1:00p	ECC room 348a
Mike Walker	Tech Integration Specialist	10/14	1:30p	ECC room 348a
Molly Schroeder	Tech Integration Specialist	10/14	2:00p	ECC room 348a
Cathy Nelson	Media Specialist	10/14	3:00p	South View MS
Marilyn Kuppe	Web design/ database	10/19	8:00a	Room 348A ECC
Al Bliss	Video media Specialist	10/19	8:30a	Room 348A ECC
Ms. Peggy Wickland	Supervisor Student IS	10/19	9:15a	Room 348A ECC
Tess Stavlo	Telephone Support	10/19	10:00a	Room 348A ECC
Wayne Hornecke	Technical Services/Help desk	10/19	10:45a	Room 348A ECC
Mark Lawrance	Parent & Tech Advisory	10/20	9:00a	Room 348A ECC
Gwen Jackson, Ph. D.	Director of H.R and Admin. Services	10/20	11:00a	Room 348A ECC
Kristy Ardinger	Teacher	10/20	12:05p	Concord Elem
Steve Westerlund	Network Manager	10/20	1:00p	Room 348A ECC
Mike Burke, Ph. D.	Director of Media and Technology Services	10/20	2:00p	Mike's Office
Doug Johnson & Val Burke	Dir Community Ed/Relations	10/21	1:00p	Via Phone
Thel Kocher, Ed. D.	Dir Research & Development	10/21	1:45p	Via Phone

LCD monitors		111	94	92	92	102	77	100	191	161
LOCATION -		*CONCORD*	*CORNELIA*	*COUNTRYSIDE*	*CREEKVALLEY*	*HIGHLANDS*	*NORMANDALE*	*HIGH SCHOOL*	*SOUTH VIEW*	*VALLEY VIEW*
Voyageur AV64-450	2009	79	77	65	54	50	52	25	32	17
Voyageur AV64-400	2008	84	35	85	30	41	52	65	130	190
Voyageur AV64-300	2007	50	23	26	33	25	36	139	76	76
DMTSbuilt	2006	30	29	30	31	31	30	74	29	44
Omnitech	2003	9	21	0	14	10	24	54	62	46
MPC	2005	21	8	10	16	2	10	15	14	5
815	2000-2002	0	1		10	1	14	17		12
Savvi	2002	1	1		2		15	13	4	17
SeattleII	2000	0	0		15				17	16
Sunriver	2002	0	0		1		1		9	2
Seattle1	1998-99	0	1				5		2	8
VL400	2000-2001	0	1		1				17	15
Vei8	2000	0	0		13				86	96
tablet-PC	2005 - 2009							19		15
Mac Desktop		5				4		3	2	1
Mac laptop		1			1					
HP/COMPAQ 6535	2009	0	0			9		30	220	62
HP/COMPAQ 6715b	2008	1	7			17	27	60	46	3
THINKPAD R51	2006-07	5	6			13			39	17
Compaq EVO	2002-04	4	4	5		7				12
HP Omnibook	2002	0	0				15		7	
	Desktops	279	197	216	220	164	239	424	480	560
	Laptops	11	17	5	1	46	42	90	312	94

Computer totals by Location:	**290**	**214**	**221**	**221**	**210**	**281**	**514**	**792**	**654**

In schools Total	
Total Desktops	2779
Total Laptops	618

Instructional Hardware by Quantity and Age						
	Less than			More than		
Description	1 year	1-2 years	3-4 years	5 years	Total	Notes
Desktop Computers						
PCs	475	1310	454	766	3005	
Apple				15	15	
Sub Total	475	1310	454	781	3020	
Laptop Computers						
PCs	400	257	78	25	760	
Apple				2	2	
Netbooks	12					
Sub Total	412	257	78	27	774	
Servers						
PC	5	4	8	22	39	
Apple						
Linux						
Subtotal	5	4	8	22	39	
PDA						
Windows CE		34			34	
Palm	11				11	
Blackberry						
Subtotal	11	34	0	0	45	
Switches/routers						
Cisco	60	12	86	375	533	
Extreme						
3Com						
Other(describe)						
Subtotal	60	12	86	375	533	
Printers						
Inkjet						
LaserJet	0	4		196	200	Most > 5
Multi Function Printers						
Other(describe)						
Subtotal	0	4	0	196	200	
Other supported devices						
Video Distribution system			District-wide			
LCD Projectors	12	76	385		473	
Electronic Whiteboards	14	37	3	2	56	
IP based Interactive TV systems			District - wide			
Student response devices	0					
Sound enhancement	10	5			15	
Classroom/building TV's				200	200	
Video Cameras/document cam	27	23			50	
Still Cameras						
DVD						
Scanners	1	34	2		37	


DMTS Organizational Chart
Superintendent
Director of District Media & Technology Services
Supervisor Student Information Systems
Welcome Center Registration Staff (2)
Network Manager
Technology Integration Specialists (3)
Telecom Support Specialist
DMTS & Professional Library Clerical Staff (3)
Technology Support Specialists (7)
Media Repair Tech.
Computer Paraprofessionals (11)
Media Specialists (Program Implementation) (9)

Technology Job Time Distribution

Position	Job Categories - % of Time Spent								
	Technical Assistant	System Installation	System Repair	Media Production	Document Reporting	Website Databases	Years in District	Hours of Training per Year	Degrees and Certification
Media Repair Tech	25	20	20	10	25	0	3.5 yrs.	30 hrs.	
Tech Support Specialist 1	20	30	25	5	10	10	12 yrs.	0 hrs.	A+, HP Certificate
Tech Support Specialist 2	35	40	5	5	5	10	5 yrs.	20 hrs.	BA - Computer Science
Tech Support Specialist 3	40	10	25	5	5	15	8 yrs.	8 hrs.	
Tech Support Specialist 4	60	30	0	0	10	0	2 yrs.	10 hrs.	
Tech Support Specialist 5	75	15	8	0	2	0	10 yrs.	2 hrs.	BS – Plant Science 2 Yr. Cert. Electronic Tech-Computers
Tech Support Specialist 6	60	35	0	.5	.5	4	25 yrs.	0 hrs.	BA-Music
Tech Support Specialist 7	40	25	5	20	5	0	20 yrs.	Ongoing	BS - Business Media Production Certificate
Tech Support Specialist 8	14	40	1	0	5	40	16 yrs.	30 hrs.	BS – General Design A+ Certification

Technology Integration Specialist Time Distribution

	% of Time							
	Support Professional Growth	Coach the Innovative use of Technology	Support Infusing Technology Into Curriculum	Facilitate Staff Development	Facilitate Communication	Years of Experience at DMTS/Years Teaching	Hours of Training Per Year	Degree
TIS 1	10	25	35	15	15	2/11	120 hrs.	MS-Elementary Education BS-Elementary Education Tech Certificate O & T Certificate
TIS 2	5	15	15	15	50	12/21	120 hrs.	BS – Health/Phy. Ed. MA – Curriculum & Instruction Education Specialist in Education Leadership
TIS 3	10	30	20	30	20	2/26	64 hrs.	BA – Math MA – Learning & Technology

District Technology Specialist Skills and Responsibilities Matrix
Draft Sample

The purpose of this sample document is to list the responsibilities of a particular job or on a larger scale a department and list the skills staff should have to fulfill the responsibility. This matrix can aid in job description updating, identifying department structural changes, and determining whether a department has the right staff with skill sets to match all the responsibility requirements.

	Skills					
Responsibilities	Interpersonal Communication	Writing	Presentation	Technical	Training	<addl. Skills>
Supervises help desk	X	X	X	X		
Help desk support	X	X		X		
Add/delete software				X		
Add/delete network users				X		
Staff training	X	X	X	X	X	
Special projects	X	X		X		
Diagnostic testing				X		
Manage server backups	X			X		
<Add other responsibilities>						

Custom Database Programs maintained by Marilyn Kuppe

Operations Information - Edina Public Schools Technology Audit - October 2009

16. Does staff do any custom computer programming that is used for administrative and/or instructional purposes? If so please describe the application and whether the application is documented in writing. (Submitted by Marilyn Kuppe)

CUSTOM COMPUTER APPLICATIONS

Edina Family Center

This custom Access database was designed for the Edina Family Center to manage the registrations and payments for classes and child care. Major enhancements have been made over the years as the program moved to credit card payments, online registration and access for parents. The Access database is the primary tool for office staff with the following online features for parents:

Family Center Online Registration

- An online registration application. Users can submit registrations and payments for parenting or early childhood classes and child care.
- Data entered on the web registration form is inserted into the Family Center database for processing.
- SQL database, Access front end, ColdFusion website
- Written documentation for yearly maintenance. Some documentation resides in the Access reports.

Family Center Online Accounts

- A secure online account application. Users can view the schedules and account records for their children.
- Web content is read-only. However, users can submit requests via email using online forms.
- SQL database, Access front end, ColdFusion website
- Written documentation for yearly maintenance. Some documentation resides in the Access reports.

Family Center Drop In Child Care Openings

- An online application that displays the daily openings in the Drop-In Child Care program.
- Web content is read-only with some filtering features.
- SQL database, Access front end, ColdFusion website
- Written documentation for yearly maintenance. Some documentation resides in the Access reports.

Edina Kids Club/Surge/WiseGuys

This custom Access database was designed for the Edina Kids Club program to manage the registrations and payments for the before and after school child care program. Major enhancements have been made over the years as the program moved to credit card payments, online registration and access for parents. The Access database is the primary tool for office staff with the following online features for parents:

Kids Club Online Registration

- An online registration application. Users can submit registrations and payments for the program offered to students in grades Kindergarten through ninth grade.
- Data entered on the web registration form is inserted into the Kids Club database for processing.
- SQL database, Access front end, ColdFusion website
- Written documentation for yearly maintenance. Some documentation resides in the Access reports.

Kids Club Online Accounts

- A secure online account application. Users can view the schedules and account records for their children.
- Web content is read-only. However, users can submit requests via email using online forms.
- SQL database, Access front end, ColdFusion website
- Written documentation for yearly maintenance. Some documentation resides in the Access reports.

K-Plus (All Day K) Online Registration

This custom feature was added to the Kids Club database to manage the registrations and payments for the All Day Kindergarten option for Edina Public Schools. Student Information Services shares access to this feature.

- An online registration application for Edina K-Plus. Users can submit registrations and payments for the All Day Kindergarten option.
- Data entered on the web registration form is inserted into the Kids Club database for processing.
- SQL database, Access front end, ColdFusion website
- Written documentation for yearly maintenance. Some documentation resides in the Access reports.

District Phone/Email Directory (Internet/Intranet)

This custom online database was designed for District Media and Technology to maintain a phone/email directory for the district.

- An online, searchable phone/email directory of district staff. A single database supplies data for the external (Internet) and internal (Intranet) websites depending on assigned publishing levels.
- Web content is read-only.
- SQL database, Access front end, ColdFusion website
- Written documentation for maintenance

Curriculum Online

This custom online database was designed to manage the curriculum for Edina Public Schools.

- An online information application for staff (secure) and parents (public). Curriculum Writers can enter content and upload documents for teachers to use for each course. Parents can view basic details about a course, but do not have access to documents.
- This is primarily a web-based application.
- SQL database, Access front end (for maintenance only), ColdFusion website
- Minimal documentation

Community Resources & Programs

This custom Access database was designed for the Community Resources & Programs to manage and schedule speakers, field trips and other presentations requested by teachers. The Access database is the primary tool for office staff with the following online feature for teachers:

CRP Online Requests

- An online request application. Users can submit requests for speakers, field trips and other presentations.
- Data entered on the web registration form is inserted into the CRP database for processing.
- SQL database, Access front end, ColdFusion website
- Written documentation and user manual

Athletic Online Registration

This custom Access database was designed for the Edina Public Schools Athletic Department to manage registrations and payments for athletics and activities. The Access database is the primary tool for office staff with the following online feature for students and parents:

Athletics/Activities Online Registration

- An online registration application. Users can submit registrations and payments for sports and activities.
- Data entered on the web registration form is inserted into the Athletics database for processing.
- SQL database, Access front end, ColdFusion website
- Written documentation for yearly maintenance. Some documentation resides in the Access reports.

Alternative Compensation Online

This custom online database was designed to manage the Alternative Compensation Annual Plans for the Teaching and Learning Department of the Edina Public Schools.

- A secure online application for coaches, supervisors and staff
- This is primarily a web-based application for updating records.
- SQL database, Access front end (for maintenance only), ColdFusion website
- Written documentation for yearly maintenance. Read Me file with information on the website.

Edina Resource Center

This custom Access database was designed to manage casework for the Edina Resource Center.

- Individual cases are entred and follow up calls are tracked. Significant reporting features are available.
- Access front end and data back end
- Minimal documentation

High School Period Attendance

This custom Access database was designed to track period attendance at the Edina High School.

- Students that meet certain attendance thresholds are flagged (absences only). Warning and contract letters are tracked.
- Access front end and data back end
- Some documentation on the database forms

Middle School Period Attendance

This custom Access database was designed to track period attendance at the South View and Valley View Middle Schools.

- Students that meet certain attendance thresholds are flagged (tardies and absences). Warning letters and detentions are tracked.
- Access front end and data back end
- Some documentation on the database forms

Human Resources Administrator Forms

This custom database was designed to manage user logins for the secure online Human Resource forms.

- A secure online application for administrators
- This is primarily a web-based application.
- SQL database, Access front end (for maintenance only), ColdFusion website
- Minimal documentation