Memorandum

TO: Anoka-Hennepin School Board Members
Mr. Dennis Carlson, Superintendent

FROM: Patrick Plant
Chief Technology and Information Officer

DATE: November 2, 2011

RE: 2012-2016 Technology Plan Approval

In follow-up to the review of our new 5-year technology plan at the October 26, 2011 School Board meeting, please find attached for your consideration and approval the final draft of our district 2012-2016 Technology Plan.

The Technology Plan provides a structure to examine where we are and what we must yet accomplish. In addition, it highlights actions of our previous plan (2008 - 2011), has broad involvement in needs identification and organizational goals setting for the next 5 years and meets or exceeds all state and federal requirements for school district technology plans and related funding.

TECHNOLOGY PLAN
2012 THROUGH 2016

ANOKA-HENNEPIN
SCHOOLS
A future without limit

EXECUTIVE SUMMARY

It is the primary mission of the Anoka-Hennepin School District to effectively educate each of our students for success.

Student success is our school district mission and our focus. Technology-fluent students are one measure of our educational success. Students must have access to technology tools in order to develop the skills necessary to use them effectively, efficiently, and appropriately in an increasingly complex, information-rich society. They use technology to gather information, write, demonstrate, and effectively communicate their learning. From computer labs to classroom clusters of computers where children build their reading skills, to banks of computers in secondary media centers where students scour eResources, technology facilitates the types of learning, thinking, and creativity the 21st century world demands.

Technology has transformed the core systems that allow our school district to function. Technology is an essential element to all administrative functions, providing productivity and cost savings. Human resource management, instructional resources, transportation, business services, child nutrition, and communications all depend on reliable and robust technology.

In many respects, the changes driven by educational policy, taxing policy, and accountability legislation, as well as efforts to expand educational choices by creating alternatives within both public and private education, are greatly enhanced by the emergence of information-empowered parents, teachers, and public. It is our task to seek out additional avenues to keep our entire district community informed and involved in our schools. Anoka-Hennepin is providing information through technology to parents, teachers, and interested public.

We ask our community through annual surveys how important technology is to 21st century learning. In 2009, 96 percent of our parents indicated they are aware of our A-HConnect web portal; in 2010, 95 percent of our households reported they have access to a computer and the internet. In our most recent 2011 survey, 51 percent of respondents indicated that Anoka-Hennepin needs updated technology to help students prepare for college and the workplace and 57 percent believe that updated technology is needed to improve productivity and efficiency of students and staff. Because the number of households with computers continues to increase, we believe that by merging our school district data systems with portal technology our parents will closely monitor the progress of their children, participate in the design of their children's educational experiences, and analyze information pertinent to their children, their children's school, and our school district.

By accessing multiple assessment resources, teachers can answer questions about their students' school progress and daily assignments. Principals can answer questions (real time without dependence on other staff) on the cost of programs; effectiveness of instruction; satisfaction of parents, students, and teachers; transportation; child nutrition; community; and governmental agencies. The average citizen can ask "what if" questions about their schools without depending on district staff being available. Online access leads to efficiencies of time and money for students, parents, and staff.

Teachers can use technology tools to enhance teaching and learning. By bringing digital tools into the classroom, student engagement and motivation increases. Learning becomes real, rich, and relevant. Students' visual and information literacy is enhanced. Survey results indicate that teachers are interested in integrating computer technology into their classes and daily work more often. They support an integrated pre-K-12 technology curriculum using a variety of instructional applications, electronic resources, and simulation software. Technology tools can enable students to become effective information seekers, communicators, collaborators, and inventive thinkers. Digital tools advance student productivity, creativity, and self-directed learning. We need to provide a comprehensive and equitable professional development program to improve staff technology and information literacy.

The Anoka-Hennepin Technology Plan provides a structure to examine where we are now and what we must accomplish technologically as we strive for phenomenal success in educating our students. According to recent

surveys of staff, students, parents, and community members, Anoka-Hennepin is a recognized leader in the area of using technology to improve administrative processes and operations. We use technology effectively to maximize administrative productivity. We are also valued for the strategic deployment of equipment and digital resources to meet the needs of our learners and educators. The telecommunications infrastructure and the ability to support robust communication from every learning setting were also cited as strengths. In addition, gender and race equity and preparing all our students to understand and use technology were recognized as strengths.

An examination of goals and initiatives set out in our previous plan clearly shows we have made gains and are still moving forward. Our plan provided solutions for emerging, unanticipated challenges as well as new initiatives. Expansion of our network infrastructure, increased use of the Schools Interoperability Framework (SIF) data standard through our service-oriented architecture project, ParentLink automated calling program, and mobile technology; conversion to digital textbooks and online instructional resources; and continuing to enhance our A-HConnect parent portal are examples of powerful ways technology impacts parent communication, instruction for students, instructional decisions by teachers, accountability and district efficiency.

As we move forward, we understand that improving and expanding student access to computers – both through more robust machines and/or mobile devices and infrastructure – is critical to our success. Curriculum which is frequently now most effectively delivered through computers, accommodating the demands of state-mandated tests and MAP testing, accessing electronic resources (eResources), information on the holdings of our media centers, and providing technological opportunities for students to demonstrate their learning are straining our resources.

Advancing digital access as well as student readiness to use technology, networks, and information efficiently and effectively is also a priority. Therefore, expanding our wireless network capacity is critical as we implement a BYOD (Bring Your Own Device) structure that will allow our students even more access to technology than ever by, where possible and appropriate, supplementing the technology available themselves. We need to continue to provide necessary access to <u>all</u> our students. We need to avoid contributing to a "digital divide" among students based on their parents' ability to access technology in their home.

We must provide the human and technical support which will allow our teachers to make full use of the critical student data available immediately to them through MAP testing as well as the analytical data that can be queried from our data warehouse. We are committed to ongoing professional development in the use of technology tools to enhance teaching and learning.

Departments and administrators need support and robust technology to effectively make the best and most cost-effective uses of scarce resources. Anoka-Hennepin is a leader in using technology to create a system of efficient parent-, staff-, and student-friendly services.

At Anoka-Hennepin ISD #11, we believe technology is an integral component in the education of our students. Technologies are constantly emerging and we are poised for success. If we can deliver to our students and staff the framework for technology outlined in this document, our students will be able to use technologies proficiently as informed, responsible, and contributing citizens.

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I. TECHNOLOGY NEEDS ASSESSMENT

A. ORGANIZATION LEADERSHIP & TECHNOLOGY PLANNING COMMITTEES

1. Leadership

Superintendent Dennis Carlson and the School Board provide overall leadership for technology in the Anoka-Hennepin School District. Patrick Plant, Chief Technology and Information Services Officer, coordinates all activities related to planning and implementing technology use. (Refer to Figure 1 for a district technology organization chart.)

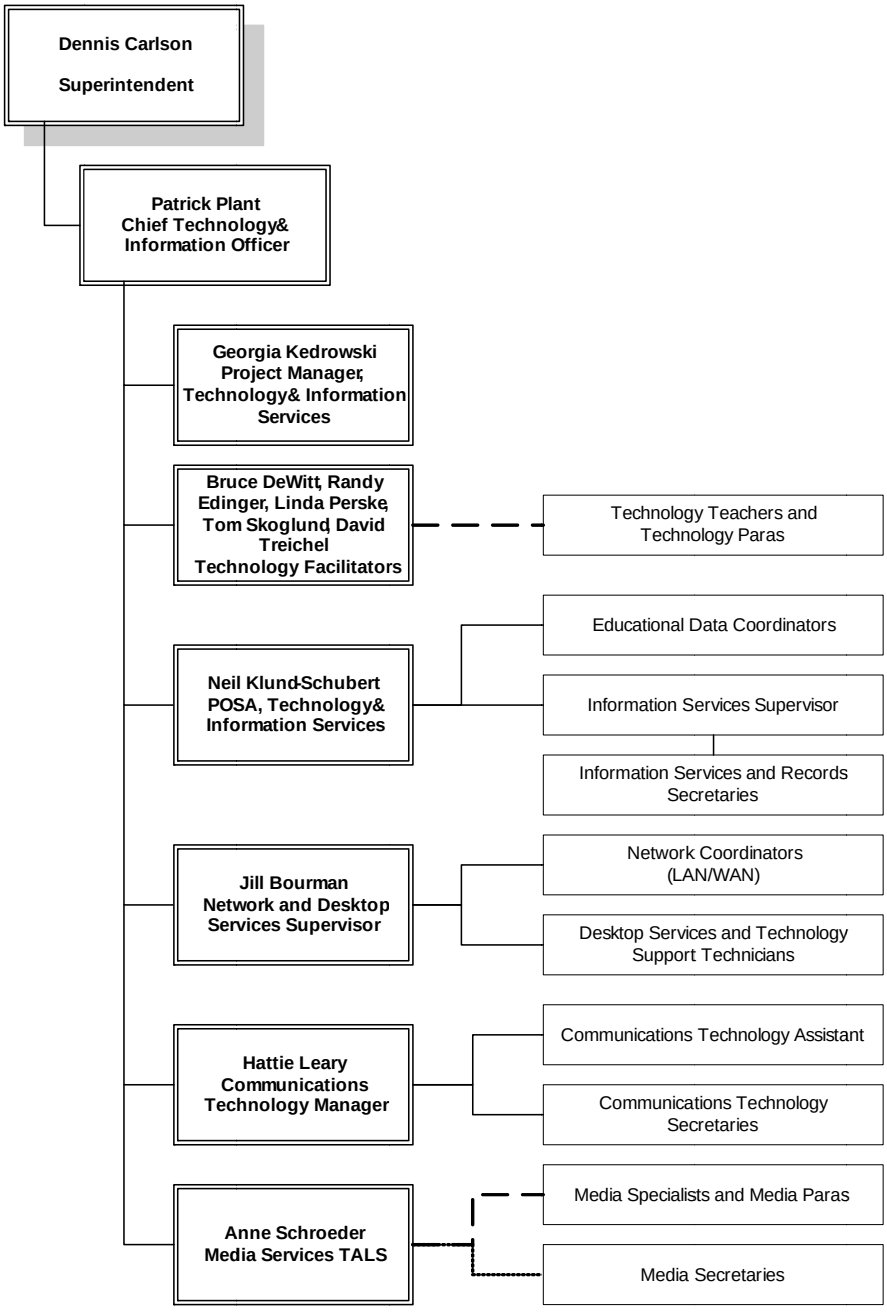

Figure 1. Technology Leadership Structure

2. Technology Steering Committee

It is the vision of the Technology Steering Committee (TSC) to provide equitable and effective use of existing and emerging technology to engage and challenge diverse learners in preparation for global citizenship in an increasingly complex information society. Technology supports effective communication and an efficient use of resources, as well as provides a conduit for data-driven decision making.

The School Board acknowledges the role of the TSC (chaired by the Chief Technology and Information Officer) in advancing the technology vision and implementing successful technology and information use district wide. The role includes determining compatibility and capacity levels, performing costing and data analysis, evaluating emerging technologies, exploring appropriate funding strategies, and providing committee recommendations on an annual and ongoing basis. In addition, the TSC makes recommendations regarding the allocation of district resources and examines the impact on district resources as they relate to technology.

The TSC meets monthly and gives progress reports to the School Board and superintendent periodically throughout the year. A formal presentation of existing goals is conducted with the School Board in the spring and an updated set of objectives established for the upcoming year. The complete plan is formally evaluated every 4 years. TSC members are:

- Patrick Plant, Chief Technology and Information Officer, Chairperson
- Greg Blodgett, Principal, Roosevelt Middle School
- Jill Bourman, Network and Desktop Services Supervisor
- Jeff Clusiau, Principal, Ramsey Elementary
- Ellen Delaney, Directory of Secondary Curriculum and Instruction
- Bruce DeWitt, Technology Facilitator
- Randy Edinger, Technology Facilitator
- Michael George, Principal, Champlin Park High School
- Chuck Holden, Chief Operations Officer
- Brett Johnson, Assistant Director of Communications and Public Relations
- Georgia Kedrowski, Project Manager, Technology and Information Services
- Steve Kerr, Director of Community Education
- Neil Klund-Schubert, Principal on Special Assignment, Technology and Information Services
- John Koehler, Director of Finance
- Hattie Leary, Communications Technology Manager
- Sharon Mateer, Research, Evaluation, and Testing Supervisor
- Esther Motyka, Assistant Director of Child Nutrition Technology and Support
- Brandon Nelson, Director of Labor Relations and Benefits
- Linda Perske, Technology Facilitator
- Cherie Peterson, Assistant Director of Special Education
- Johnna Rohmer-Hirt, Director of Research, Evaluation, and Testing
- Laurie Resch, Director of Elementary Curriculum and Instruction
- Anne Schroeder, Media Services Teaching and Learning Specialist
- Tom Skoglund, Technology Facilitator
- Jill Somrock, Teaching and Learning Specialist
- Jeremy Tammi, Principal, Adams Elementary
- David Treichel, Technology Facilitator
- Bill Underwood, Teacher on Special Assignment, Special Education
- Michelle Vargas, Chief Financial Officer

A variety of committees, task forces, and focus groups described in the following paragraphs are involved in developing, advising, and implementing the district's Technology Plan. They have diverse representation, often including people from all areas of the school district, including parents, students, building representatives, departments, and principals. Figure 2 indicates the flow of technology decision making.

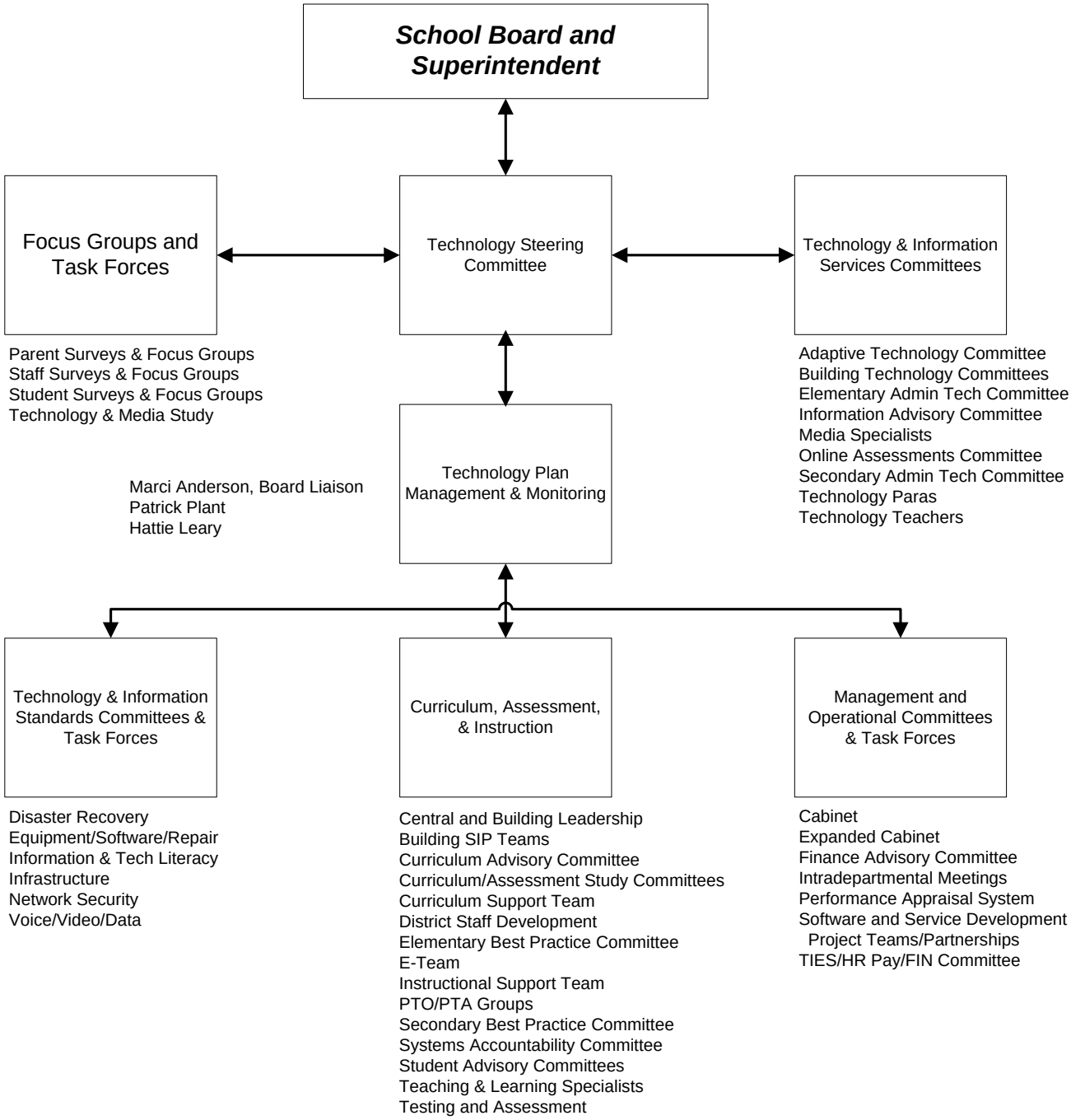

Figure 2. Technology Needs Identification and Decision-Making Process

a. Focus Groups and Task Forces

Focus groups and task forces are created, as needed, to address new issues. These groups are temporary and provide feedback to the other committees that report to the TSC. For example, a task force was created to determine specifications and evaluate proposals for our digital dashboards and analytics project.

b. Technology and Information Services Committees

i. Building Technology Committees. Each building in the district has its own technology committee that focuses directly on the individual building needs.

ii. Elementary and Secondary Administrative Technology Committees. Our secondary and elementary technology committees consist of key stakeholders from building administration

and technology teachers and meet monthly to collaborate on key secondary/elementary technology issues.

iii. Information Advisory Committee**.** The Information Advisory Committee (IAC) provides input and feedback to the Technology Steering Committee regarding new project/service planning and evaluation/improvement of the current technology-based information- and communication-related projects. Work groups include areas such as assessment, records management, data dashboards and analytics, Excensis GIS web presence, and communication (e.g., SchoolCenter, A-HConnect, ParentLink), secondary and elementary progress reporting, secondary grading, and parent communications. Membership includes representatives from all areas of the organization that are affected by or directly involved with systems managing student, staff, financial, parent, and community information and communication tools. The IAC works to:

- Develop ideas and requirements that expand our capacity to gather, analyze, and report student, staff, and financial information (pre-K through post-12)
- Identify different purposes and audiences for the use of student-, staff-, and financial-related information and communication tools
- Develop the district's belief statements regarding the collection, reporting, access, and maintenance of staff and financial information and communication tools
- Determine strategies for managing student-, staff-, and financial-related data and communication tools in the most efficient way possible
- Develop draft district implementation proposals for student-, staff-, and financial-related data communication tools initiatives including rationale, timelines, and funding for further consideration by the TSC and other representative stakeholder leadership groups

iv. Media Specialists**.** District secondary media specialists meet monthly for in-service, training, and technology updates. The elementary media specialists meet twice yearly and are represented by a core group, which meets bi-monthly for in-service, training, and technology updates.

v. Online Testing Committee. This committee is responsible for examining current and upcoming online testing and to identify and make recommendations related to implementing online testing. In addition, the committee addresses concerns and recommends improvements to current online testing practices.

vi. Technology Teachers/Technology Paras**.** Technology Teachers and Technology Paras meet separately each month to keep up with changes in technology. These meetings focus on specific training issues, as well as to define processes and share knowledge on technology issues.

c. Technology Plan Management and Monitoring

This team is responsible for managing technology plan content and ensuring alignment with board goals, and writing and submitting the technology plan to the technology steering committee for final review before it is presented to the School Board. In addition, the team meets periodically to determine goals status and ensure needs are being met. The team has broad representation, including a school board member, chief technology and information officer, and communications technology manager.

d. Technology and Information Standards Committees and Tasks Forces

These standards are what we use to ensure our infrastructure is running at its best. We have equipment, software, and repair/maintenance standards that are set through collaboration of several committees and groups, such as our technology and information committees and our network services and media departments. These standards are checked every time a new application is introduced in the district. Our network security is audited every year by an outside vendor to ensure our infrastructure is as secure as it can be. For example, our equipment and software committee:

- Coordinates the evaluation and purchase of hardware and software to best support the educational process (administrative and instructional use)
- Makes recommendations on large hardware and software acquisitions taking into account total cost of ownership and total value of ownership
- Reviews and revises District hardware and software standards; makes recommendations for purchases that meet the standards
- Establishes and revises policy on technology equipment donations

- Explores cutting edge technology (both hardware and software) and evaluates where these new technologies would be most appropriate

e. Curriculum, Assessment, and Instruction

The district has several committees and task forces dedicated to curriculum, assessment, and instruction. These committees include a broad representation, from central and building leadership, to teachers, parents, and students. They include building SLIP teams who determine building goals (both technology and instructional), PTO/PTA parent groups, student advisory committees, and others.

f. Management and Operational Committees and Task Forces

Management and operational committees and task forces provide district-wide leadership, direction, and planning forums, and primarily support our administrative departmental needs. An operational committee example would be the TIES/HR Pay/Finance committee that collaborates with TIES, a consortium of school districts providing the district purchasing, finance, human resources/payroll, and core student data support.

B. DEMOGRAPHICS OF ANOKA-HENNEPIN

The Anoka-Hennepin School District serves a population of more than 240,000 living in all or parts of 13 municipalities in Anoka and Hennepin counties in the state of Minnesota. Our student population, which has been stable since 1999, has come into a period of slight decline.

Anoka-Hennepin is the largest school district in Minnesota in terms of student enrollment; annually, we produce the most high school graduates in the State of Minnesota. More than 30 percent of the households in the district have children, which is high compared to most other Minnesota school districts. A summary profile of district demographics (fall 2010 data) and buildings:

- Total school district population: 244,045
- Total number of households: 83,639
- Households with children: 39 percent (39 percent includes nonpublic school children); 30 percent of households that attend Anoka-Hennepin schools
- Total preK-12 enrollment: 39,063
- General fund revenue per student: $10,247 (state average $10,185), per 2009 MDE profile report
- Students on free/reduced lunch: 31.72 percent
- Students of color: 21.48 percent
- Special education students: 14.0 percent
- 24 elementary schools (grades K through 5)
- Six middle schools (grades 6 through 8)
- Five comprehensive high schools (grades 9 through 12)
- One technical/vocational high school (grades 10 through 12)
- Two alternative high school programs
- One alternative middle school program
- Three centers for students (grades K through 12) with special needs
- Two early childhood centers

C. NEEDS ASSESSMENT

In January 2004, the district conducted a survey of staff, students, parents, and community members using an online assessment tool provided by the North Central Regional Educational Laboratory (NCREL), a wholly owned subsidiary of Learning Point Associates. We used the January 2004 survey results as a baseline for future surveys.

In spring 2006, the Technology and Media Curriculum Study Committee conducted a needs assessment survey of teachers and students. The committee's final report including 16 recommendations was presented to the School Board in June 2006:

In the area of Curriculum, Instruction, and Assessment

1. Curriculum-writing teams should develop a pre-K-12 integrated technology and media curriculum scope and sequence, including assessments, by appropriately placing the ISTE National Educational Technology Standards for Students and the MEMO standards into the curriculum, as required by the Minnesota department of education.
2. To ensure high quality instruction, pre-K-12 teachers must use technology and media resources effectively to support their efforts throughout the instructional cycle. This includes planning, implementation, and assessment.
3. Pre-K-12 teachers must enhance their instruction with media-rich and meaningful technology learning opportunities for all students.
4. Processes must be created to monitor and assess implementation of the ISTE and MEMO standards.
5. Create a task force to evaluate the impact of online state testing.

In the area of Programs and Policies/Equitable Access

6. Establish procedures for decisions that impact technology or media, such as curriculum adoption, hardware, software, staffing, peripherals, student information system, and network operating systems.
7. Review and modify the technology inventory management system to improve the decision-making processes.
8. Develop and implement an evaluation process for purchasing technology equipment, software, and library resources.

In the area of Resources

9. All teachers and students should receive the services of a technology teacher.
10. Every school should have a technology para.
11. Establish policies providing for technology-rich learning environments for all district students.
12. All students/teachers receive the services of a library media specialist
13. Staff every traditional, pre-K-12 school with a media para.
14. Update media collections to ensure students have access to current online reference databases.

In the area of Professional Development

15. The district should provide a comprehensive and equitable professional development program to improve staff technology and information literacy. Training needs to focus on integrating technology and information literacy into the curriculum for the purpose of improving student achievement. Professional development would include training on staff productivity and data analysis tools to improve job efficiency and facilitate a differentiated instruction.
16. Establish a position to manage professional development.

In spring, 2011, Anoka-Hennepin staff participated in a Minnesota state-wide instructional practices survey. Anoka-Hennepin staff results are:

1. Curriculum writing teams should continue to develop a Pre-K-to-age-21 integrated technology and media curriculum scope and sequence, by appropriately placing the ISTE national Educational Technology Standards for Students and the MEMO standards into the curriculum, as required by the Minnesota Department of Education.
2. Continue to ensure high quality instruction, through effective use of technology and media resources to support the complete instructional cycle including planning, implementation, and assessment by supplying resources such as Discovery Education and other instructional content streaming.
3. Pre-K-to-age-21 teachers must continue to enhance their instruction with media-rich and meaningful technology learning opportunities for all students.
4. Process must be created to monitor and assess implementation of the ISTE and MEMO standards.
5. Continue to build the district's capacity to develop and administer online/distance learning courses.
6. Identify and develop tools for tracking and analyzing data and displaying a variety of monitoring reports for system-wide accountability and continuous improvement planning.
7. Reconvene the task force to evaluate the impact of increased state and local online testing.
8. Continue to provide staff development in the following areas:
   - Projection devices
   - Interactive white boards
   - Class response systems

- Audio/video conferencing and collaboration
- Podcasting
- Moodle and Google Apps

The spring 2011 survey reaffirmed the 16 recommendations presented to the School Board after the 2006 survey. We have made adjustments to technology support staffing levels, but the 2006 recommendations remain fundamentally the same. We will continue to evaluate and adjust technology support staffing levels as new technologies and requirements emerge.

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II. DISTRICT ACTION PLAN/TECHNOLOGY VISION

A. DISTRICT ACTION PLAN

The District has spent considerable time determining what we can do to improve our data-driven decision making capability. We defined organizational goals and key metrics through a comprehensive planning and monitoring process, resulting in our District Action Plan. Core components of this plan include:

- Mission statement – Our core purpose: **It is the primary mission of the Anoka-Hennepin School District to effectively educate each of our students for success.**
- Core values – drivers of our words and actions:
  - Respect: to show consideration for self, others, and property
  - Responsibility: to carry out obligations in a dependable manner; to acknowledge the consequences and rewards of one's choices; to contribute to society
  - Appreciation of Diversity: to recognize and honor the dignity of each individual; to celebrate differences among culture, gender, ability; to work cooperatively with others and to resolve conflicts
  - Integrity: to display honesty, perseverance, confidence and pride, trustworthiness, and the courage of one's convictions
  - Compassion: to show empathy, generosity, kindness, patience, and sensitivity.
- Vision 2014 – what we intend to create and experience:
  - Comprehensive, responsible, relevant, and aligned academic, curricular, and support programming and services which reflects our district and community sense of meeting mission and core values, not others
  - Coordinated, collaborative, and comprehensive approach centered on family and student needs
  - A working and learning culture reflective of, and driven by our core values
  - Energized and engaged learners ready for college, careers, and citizenship
  - Data-informed and results-driven practices of accountability and continuous improvement
  - Alignment and partnership between our communities, families, and district
  - Efficient and effective management of all resources with innovation, sustainability, and transparency
- Strategic Directions
  - **Maximizing student learning and minimizing the achievement gap.** All Anoka-Hennepin employees are committed to educating and challenging all students to achieve academic excellence.
  - **Implementing "best in class" leadership and management practices.** We are committed to putting in place "best in class" leadership and management structures, systems, and practices throughout the organization.
  - **Expanding professionalism for administration and staff.** We will redefine professionalism for all staff by engaging all stakeholders as we establish expectations consistent with our mission, vision, and core values, clarify expectations and accountabilities, and ensure placement of staff so that they are most effective.
  - **Engaging and collaborating with stakeholders for educational excellence.** We will engage and collaborate with key community partners, including volunteers, other educational institutions, for-profit organizations, nonprofit organizations, and government agencies.

Scorecards with Key Performance Indices (KPIs) have been created for each major central department. In addition, department and school improvement plans link to the scorecards.

Table 1 cross-references currently identified goals to our strategic directions.

B. TECHNOLOGY VISION STATEMENT

It is the vision of the TSC to provide equitable and effective use of existing and emerging technology to engage and challenge diverse learners in preparation for global citizenship in an increasingly complex information society. Technology supports effective communication and an efficient use of resources as well as providing a conduit for data-driven decision making.

TABLE 1. HOW GOALS ADDRESS STRATEGIC DIRECTIONS

Goal	Strategic Direction			
	Maximize Student Learning	**Implement Best-in-Class Leadership**	**Expand Professionalism**	**Engage/ Collaborate with Stakeholders**
Business Services: Student Fee Management		X		X
Child Nutrition: Communication of Menus/ Department Updates		X		X
Child Nutrition: Online Educational Benefits Applications		X		X
Child Nutrition: Update Technology in School Cafeterias		X		
Communications and Public Relations: Digitize Photo Archive				X
Communications and Public Relations: Improve Video Production		X		X
Communications and Public Relations: Social Media Expansion		X		X
Communications Technology: Improve Identity management Process.	X	X	X	X
Communications Technology: Phone System Evaluation/Upgrade		X	X	X
Communications Technology: Service Oriented Architecture	X	X	X	X
Community Ed: Print Shop Technology Replacement and Enhancement			X	X
Community Ed: Upgrade and Integrate Technology Solutions	X	X	X	X
Curriculum: Audio-Enhanced Classrooms	X	X		
Curriculum: Audio/Video Infrastructure Updates/ Replacement	X	X		
Curriculum/Network Services: Building-Wide Wireless Access	X	X	X	
Curriculum: Digital Textbooks	X	X		
Curriculum: Establish Consistent Classroom Computer Replacement Cycles	X		X	
Curriculum: Establish Consistent Student Access Computer Replacement Cycle	X	X		
Curriculum: Expand Use of Multimedia Resources for Classroom Instruction and Staff Development	X	X	X	
Curriculum: Increase Technology Integration Staff Development	X	X		
Curriculum: Interactive Technologies for Classrooms	X	X		
Curriculum: Interactive Whiteboards and Tablets	X	X		
Curriculum: LCD Projectors	X	X		
Curriculum: Non-Computer Technology Devices	X	X		
Curriculum/Desktop and Network Services: Printers/Scanners		X		
Curriculum: Student Response Systems and Applications	X	X		

TABLE 1. HOW GOALS ADDRESS STRATEGIC DIRECTIONS

Goal	Strategic Direction			
	Maximize Student Learning	**Implement Best-in-Class Leadership**	**Expand Professionalism**	**Engage/ Collaborate with Stakeholders**
Desktop Services: Implement Client Management Software Suite	X	X		
Desktop/Network Services: Improving Customer Service and Satisfaction For the Department	X	X	X	
Employee Services: Training and Staff Development Delivery and Certification System	X	X	X	
Information Services: Data Dashboards and Analytics	X			X
Information Services: ExpressBook	X			X
Information Services: Help Desk Software			X	
Information Services: Master Scheduling Software	X			
Labor Relations & Benefits: Local Network Database Infrastructure		X	X	
Media Services: Bookroom Inventory and Management System	X	X	X	
Media: Enhance Access for Students to e-Resources and the Internet	X	X	X	
Media: Implementing Technology Staff Development for K-12 Media Staff	X	X	X	
Media: Mobile Technology	X	X	X	
Media Services: Textbook Inventory and Management System	X	X	X	
Network Services: Backup System Upgrade	X	X	X	
Network Services: File Server Consolidation to a VM Environment	X	X	X	
Network Services: Implement Network Authentication and Access Controls	X	X	X	
Network Services: Implement Tools for Internet Traffic Shaping	X	X	X	
Network Services: Implement Wireless Controllers and Improve Wireless Access and Reliability	X	X	X	
Network Services: Network Infrastructure Upgrade	X	X	X	
Network Services: Storage Area Network Upgrade	X	X	X	
Special Education: Staff Development Enhancements		X	X	
Special Education: Student Learning and Access	X	X		
Special Education: Student Plans Enhancements	X		X	
Special Education: Technology Tools	X	X	X	

C. GOALS, OBJECTIVES, AND STRATEGIES FOR TECHNOLOGY

To reach the district's technology goals, we tied them directly into the four elements in our Strategic Directions. Our specific goals are provided in the following paragraphs.

1. Business Services: Student Fee Management

As parents are becoming used to paying Child Nutrition account bills on line using our TIES FeePay application, requests are made to provide the same service for other applications such as student athletic fees, overdue books, lab fees, etc. We will evaluate site-based fee management software options and design integration of online fee payment through our A-HConnect portal and site production system recording.

2. Child Nutrition: Communication of Menus/Department Updates

Child Nutrition will expand use of digital menu boards located in the school cafeterias to communicate menus, menu changes, and other information in a timely manner. The department will work with the Communications and Public Relations Department to use social media options to improve communications to parents, staff, and students.

3. Child Nutrition: Online Educational Benefits Applications

Numerous households in our District consider English as their second language and find that forms written in English are challenging. Online applications offer a cost-effective option to assist these families. Child nutrition will investigate options and evaluate feasibility of providing forms created using different languages.

4. Child Nutrition: Update Technology in School Cafeterias

This is an ongoing goal Child Nutrition. The program is a self-supporting program, which benefits the district's general education fund by not becoming a financial burden to that fund. To remain self-supporting the program will continue to evaluate new developments for POS and other pertinent technology options.

5. Communications and Public Relations: Digitize Photo Archive

Anoka-Hennepin has extensive archives of printed photos and photo negatives that take up considerable filing space. The Communications and Public Relations department needs to digitize its archives. During the next 5 years, the department will work with Media Services, which maintains other portions of the district archives, to establish electronic and/or online archives of district photos and publications.

6. Communications and Public Relations: Improve Video Production

Much of our community, especially younger families are accustomed to video as a primary communication tool. As a visual medium, video is a highly effective method of communication – it can close the gap between the classroom and the home, bringing viewers inside Anoka-Hennepin classrooms. The Communications and Public Relations department wants to expand our video production capabilities as a way to communicate to our families better. This project will include processes to mitigate challenges related to obtaining parental permission for filming their children, reducing and/or eliminating other communication to provide video instead, and ways to accustom staff to use of video as a primary way of communicating with our public audience.

7. Communications and Public Relations: Social Media Expansion

Five years ago, Facebook was a minor contributor to the Internet. Currently, it is one of the largest web sites in the world with millions of users. The average user spends 14 minutes of their day on Facebook. Social media, which encompasses more than Facebook, appears to be a permanent part of how we communicate – and district communication must adapt to this reality. Social media are third-party entities. This reduces management and support to district technology staff, and instead there are ownership issues to be aware of, e.g., everything posted on Facebook is more or less owned by Facebook.

The Communications and Public Relations department intends to expand to other popular social media to provide content that parents and users want. Social media currently are a secondary means of communication – the district web site and print publications are its primary vehicles. Depending on the success of social media, the district could decide to move content to these sites as a primary communication tool.

8. Communications Technology: Improve Identity Management Process

The Communications Technology department manages all parent, staff, former staff, and student accounts. These accounts are used to access our A-HConnect portal solution, network operating system, e-mail, voice mail, phones, and many applications. Parent, student, and casual and former staff accounts are managed automatically using a Microsoft Forefront Identity Manager (FIM) solution. The regular staff account process is more complex and requires a manual solution to properly manage network access rights and ensure that staff have needed accounts set up the first day they start work. This function is continually changing; we are always seeking ways to improve the process, with the ultimate goal of managing regular staff accounts automatically as well.

9. Communications Technology: Phone System Evaluation/Upgrade

Our current phone system was installed in 1996. The system continues to meet our needs very well. Communications Technology will continue to evaluate the system's effectiveness regarding maintenance and overall cost, as well as investigate emerging technologies and how they could improve the system. As part of the overall network infrastructure upgrade/evaluation project, Communications Technology will determine whether a full voice over IP (VoIP) system or a hybrid VoIP solution that would leverage our fiber backbone with our existing system while retaining our low-cost voice switching systems at the individual buildings would be the best and/or lowest cost solution for the district.

10. Communications Technology: Service Oriented Architecture

The development of an enterprise-level information management system has progressed on multiple levels. We use Schools Interoperability Framework (SIF) data sharing standards to share information between our student information system and library, parent voice communications, and child nutrition applications, with more applications on the horizon. A significant implementation includes the state of Minnesota SIF vertical reporting initiative which is starting up during the 2011-2012 school year.

Data integration for our district A-HConnect portal and Active Directory LDAP data base has been developed to create a single source authentication method for our student information system, myView payroll system, and fee pay solution that allows parents to pay lunch accounts on line. We will continue to evolve the service oriented architecture (SOA), employing industry standard tools such as Open I.D., and integrate single sign-on authentication methods for more applications, e.g., library, data dashboard, Webex, Discovery Education, Genesis Fees, ExpressBook, and NetTrekker, through our district portal.

11. Community Education: Print Shop Technology Replacement and Enhancement

This is an ongoing goal for the Community Education Department to improve our print shop technology. Current projects include work on implementing a work flow management system that would enable customers to identify the status of their work order, as well as determining what equipment can be enhanced and what software will help print shop efficiency.

12. Community Education: Upgrade and Integrate Technology Solutions

Limited integration currently exists between Community Education and K-12 within both the operating and student impact and tracking arenas. Integrating functions like fee collection would present our customers with a single point of contact and make doing business with the district easier. Integrating student data would enable the District to determine program impact and track students as they progress through our system. This is an ongoing project as Community Education staff collaborate with other District departments to ensure we integrate our systems efficiently and effectively.

13. Curriculum: Audio-Enhanced Classrooms

Very high quality auditory experiences are now available for students. We need to investigate the feasibility of installing, in every classroom, an audio system capable of providing students with quality audio available commercially. The limited number of projectors available to teachers allows them, on occasion, to provide students with enhanced learning opportunities by showing simulations, virtual demonstrations, video clips, etc. There is a high quality sound accompaniment to these products, but not currently experienced by the students because of the low quality sound capabilities available in the classrooms. Some classrooms have been upgraded; we need to expand to full audio amplification in all of our classrooms.

14. Curriculum: Audio/Video Infrastructure Updates/Replacement

We currently have a traditional coax-based video distribution system that was installed in 1997 as part of our 1994 technology bond. The traditional video distribution system is no longer a viable option. We rely more on the network to deliver content and it is becoming easier to manage and control the entire video system from anywhere on the network. The use of video and audio in a classroom are a mandatory component for delivering curriculum. Televisions in the classroom are generally not used in the same way they were 14 years ago; many videos used in the classroom today are short snippets, integrated into the curriculum, and were selected by the teacher via research about a specific topic prior to the class. We need a content-based delivery mechanism to deliver the relevant video when requested by the teacher.

15. Curriculum/Network Services: Building-Wide Wireless Access

Most of our buildings have wireless access points incorporated; however, all of our buildings should have wireless access in all parts of their campuses. Mobile computer labs are often the only option for teachers if they have not been able to reserve a fixed lab in advance, or if the fixed labs are booked for other needs such as online testing. In addition, more and more students and staff are using mobile devices to access district resources. By providing adequate wireless access everywhere in all of our buildings, we can more effectively use mobile labs and devices.

16. Curriculum: Digital Textbooks

As we move to a model where we adopt more and more digital textbooks, mobile devices to house those textbooks will be critical to delivering course content in a digital format. Devices such as the iPad or various e-Readers can store many textbooks for a lower cost than providing physical textbooks.

17. Curriculum: Establish Consistent Classroom Computer Replacement Cycles

It is difficult, if not impossible, for schools to provide the same equipment used in technology applications in the local, state, national, or global marketplace. Our current classroom computer replacement practice is not feasible for the effective and efficient implementation of curriculum. We are at a point where digital content is an integral part of the curriculum, not simply the optional extension it was a few years ago. Computers allow access to simulations, modeling, databases, and essential application software giving our students content and experiences necessary for them to be competitive when they leave school. We need to determine a consistent funding source and establish a schedule that would replace our classroom computers at least every 4 to 6 years. The schedule should include the needs of CAD, photo, graphics, and modular labs.

Our current classroom/teacher computers range in age from 4 years in the elementary and middle schools to 5 years in the high schools. Based on curriculum needs, we may replace some fixed desktop computers with mobile technologies which will allow classroom teacher efficiency and effectiveness. For example, physical education teachers need mobile devices to increase efficiency and effectiveness in collecting student data used to inform instruction. The goal is to have the mobile technologies replaced on a 3- to 4-year cycle.

18. Curriculum: Establish Consistent Student Access Computer Replacement Cycles

Mobile computer labs, allowing students access to the seemingly unlimited resources available on the web, or the many computer-based resources available through textbook companies and other vendors, greatly enhances learning opportunities for our students. It is difficult for teachers to use these opportunities when it is necessary to reserve computer lab time a month or more in advance. It is nearly impossible for a teacher to access a lab if a computer-based resource is identified only a few days before it is used as part of instruction delivery. Our goal is to minimize use of fixed-lab computers. Providing clusters of laptops or mobile devices in each classroom with a 5:1 minimum ratio of students to computers at the elementary level and providing mobile labs or devices by department or teams at a 5:1 minimum ratio of students to computers at the secondary level will give students more effective tools for learning in this digital age.

19. Curriculum: Expand Use of Multimedia Resources for Classroom Instruction and Staff Development

We have implemented podcasting as an effective and efficient way to delivery curriculum in specific circumstances. Expanding use of multimedia resources, including iPads, iTouch, and other devices for classroom

instruction and staff development will allow us to better serve our students by allowing them access to additional video and audio learning possibilities. Multimedia resources will help us provide a quality learning experience for students.

20. Curriculum: Increase Technology Integration Staff Development

We will not be able to stop the increased use of technology in delivering our curriculum or even as part of the curriculum we need to deliver – nor should we. Most of our licensed teaching staff are from an era when technology had a minimal role in curriculum delivery. Although some of these teachers have "kept up with the times" and have learned the importance of technology and how to use it, and although many younger staff have grown up with technology and how to adapt to changes in technology, there is still a large portion of our staff in need of training. To this end, we need to provide additional staff development opportunities to help technology become part of the instructional strategies these teachers can offer. For this to be accomplished, we need to increase the technology support staff available to teachers. Providing one technology teacher and one or two technology paras is not a sufficient support structure to meet the growing needs in the schools.

21. Curriculum: Interactive Technologies for Classrooms

We need the capability to provide interactive distance learning experiences for specific groups of students. Some courses do not generally draw enough students at each school to justify providing these learning experiences for students. Online capabilities will allow us to provide these courses without requiring enough students at to register to justify an instructor at each school.

22. Curriculum: Interactive Whiteboards and Tablets

An interactive whiteboard is a touch-sensitive projection screen that allows teachers to control a program on their computer directly by touching the board rather than staying at their desk and using a keyboard or mouse. Some teachers in some schools have been very effective integrating the whiteboards into their curriculum delivery. We have already implemented whiteboards in 20 percent of elementary classrooms and 25 percent of secondary classrooms. We will continue to install whiteboards in more classrooms during the next 5 years. We've determined that whiteboards may not be the most effective tool in all of our classrooms, therefore want to remain open to using other collaboration application tools such as students projecting the interaction from tablets, rather than assuming that the whiteboard is always the best tool.

23. Curriculum: LCD Projectors

LCD projectors allow quality images to be shown to our students. The TV monitors used in many of our classrooms do not delivery the quality picture now available in digital content. Virtually every content area delivers visual images on a regular, if not daily, basis as part of the instructional process. An LCD projector in every room is necessary to provide the imagery, maps, video clips, modeling, simulations, and other resources available to the content areas.

24. Curriculum: Non-Computer Technology Devices

Sensors and probes for science courses, calculators for mathematic courses, document cameras for any content area, digital cameras and video recorders for arts courses, video and audio recording equipment for editing programs for professional development and audio/video courses, and mobile devices for physical education teachers are examples of the smaller equipment technology needs of curriculum. These devices are essential in some courses in providing quality curriculum delivery and enhance the learning experience of our students.

25. Curriculum/Desktop and Network Services: Printers/Scanners

Our expectations of what we can and should provide to students regarding print material and our expectations of what students can accomplish in completing assignments requires printers and scanners for both staff and students. Our goal is to increase the ratio of printer/scanner combination in the district as well as implement district-wide print management software to cut printing by 5 percent per year.

Network Services has conducted an inventory of all existing network printers. They have implemented PaperCut Pro, a print monitoring solution, at two high school sites and will use information learned from this pilot program to help us meet our goal of reducing supply and maintenance costs related to our printers.

As imaging and printer trends have changed throughout the years, one of our goals is to standardize on printing products to reduce costs and training for all staff, and to have more streamlined, agreed-upon model(s) and feature sets. The new and improved print model should be more cost effective, easier to manage, and easier to use.

Today, we have approximately 850 network-based printers and more than 60 Ricoh copier/printers. As we move forward, there is now a demand for using a true, multi-function printer that can provide many benefits in one device such as printing, copying, and scanning. In addition, to the feature sets listed previously, we will be evaluating print costs related to toner and ink cartridges/supplies, maintenance, service, power, and paper to determine the best standard for our printer models moving forward.

26. Curriculum: Student Response Systems and Applications

One of the largest factors impacting student achievement is frequent formative assessment and the ability to provide immediate feedback to all students. Student response systems are a very effective tool for meeting this need. These devices provide student opportunities to make predictions, draw conclusions, and answer questions. They increase participation and motivate students to want to learn the content. They provide instructors with clear and immediate information about student performance and help instructors determine the need and extent of differentiation in the classroom. Our goal is to provide one set of devices for every four classrooms and to have one additional set for every grade level.

27. Desktop Services: Implement Client Management Software Suite

Currently, there are more than 11,000 Macintosh devices employed in the district. These devices are currently managed independently and manually, with no mechanism in place to ensure device software images are consistent. Managing these devices manually is cumbersome and time consuming. Many critical maintenance tasks are delayed or never completed because it's virtually impossible to manage that many devices manually.

Implementing a client management software suite will allow technology staff to more efficiently support many aspects of Macintosh and iOS client management, including:

- Imaging
- Software updates
- Patch management
- Software distribution
- Remote control
- Inventory
- Settings management
- License management
- Usage management

28. Desktop/Network Services: Improve Customer Service and Satisfaction for Department

The Desktop and Network Services departments are implementing an automated help desk software solution to better serve the growing needs of district technology users. Web Help Desk software will offer significant gains for the department in the areas of efficiency, time and task management, and communications and relations with site technology staff. This software package will be rolled out to our site technology staff beginning school year 2011-2012. Site technology staff will be able to submit trouble tickets, search a knowledge base, and find answers to frequently asked questions. This solution will greatly enhance building technology staff's efforts to resolve technology problems they encounter.

29. Employee Services: Training & Staff Development Delivery and Certification System

The Employee Services department will develop and implement a secure, web-based system for eLearning, providing a simple and intuitive interface for all district employees to use, while improving content management and administrative control. This system will ensure just-in-time delivery of developmental content to district staff, which will improve staff job performance. The system will be used to provide consistent and timely

information to all staff regarding policy and practice within the district, as well as document employee understanding of content provided.

30. Information Services: Data Dashboards and Analytics

The District has completed an RFP process to evaluate and select the next generation tools for managing and presenting data. We will implement a solution that provides comprehensive, standardized, personalized, and actionable data in educational, operational, and administrative areas through the use of online dashboard/analytic tools. The solution will provide a key decision support tool for District stakeholders to support, measure, and monitor progress meeting organizational goals by presenting and enabling analysis of key data used to perform their work. This system/platform will collect data from multiple systems currently in use and present it in ways that enable better decision making through role-based data presentation, and trend, comparative, and predictive analysis. The data are expected to be presented in ways that clearly identify near real-time progress relative to goals and send alerts to highlight important required actions.

31. Information Services: ExpressBook

Our Elementary Electronic Grade Reporting (EEGR) System and our Elementary Electronic Progress Reporting (EEPR) solutions will be combined into a new product, ExpressBook. EEGR has been widely used in data collection for intervention programming (AVMR and Reading Recovery). ExpressBook will be pilot tested during 2011 for collection of grade reporting and intervention data collection. Based on teacher interest and funding for improving building technology support structures, implementation of ExpressBook may be expanded to wider grade book-level teacher use, including general education, supplemental programs, and ESL.

32. Information Services: Help Desk Software

Information Services staff are the main point of contact for any questions regarding our student information system and data management functions. We currently do not have a repository of help desk solutions to access when we troubleshoot problems. Implementation of help desk software will improve the efficiency and effectiveness of Information Services staff.

33. Information Services: Master Scheduling Software

The District completed phases I through III as part of implementing our new student information system, EduPoint's Genesis product. Phase IV will include implementing the Master Scheduling Software component. The application will require testing and feedback with the goal being to implement during the 2012-2013 school year. In addition, development has been started to create elementary schedule balancing software.

34. Labor Relations & Benefits: Local Network Database Infrastructure

The Labor Relations and Benefits Data Department and is working with Network Services and TIES to convert a shared (transient) MS Access database that warehouses data pulled daily from TIES' HR/Pay data base to a SQL server. This project includes migrating several databases/spreadsheets (input/capture) used for critical daily processing to the new SQL data base. Providing this data in a SQL format will create a more robust and stable environment for multiple users/departments to share the data.

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35. Media: Bookroom Inventory and Management System

The Media Department will develop and implement a system to receive, inventory, process, and track leveled reading books and bookroom materials. We must, as an interconnected system, be able to link materials inventory with budget and finance, instructional needs, communication, administration, and human resources. This system will ensure students receive reading materials tailored to their learning needs. An inventory management system will minimize loss and provide timely access to the location of materials. By centralizing tasks, the system will save the district money by reducing duplication of effort and using non-teacher labor to accomplish tasks.

36. Media: Enhance Access for Students to e-Resources and the Internet

Since research has become a formal and important part of the Minnesota English Language Arts Standards, access to current, objective, high-quality information provided by subscriptions databases (e-Resources) will become more and more critical. Currently, only a very few schools (the very newest and those

who have forged ahead with parent support) can provide online access to 50 percent of the students in a single class, which is the minimum standard for a quality media center. The district needs to move ahead to meet a standard of library technology infrastructure that meets or exceeds the standards as designated by AASL Best Practices for Media Centers. This should include a ratio of 4 or less students per Internet-connected multimedia computer or device, and on-demand access for every student. We need a replacement cycle established by the district of 4 years or less for search stations at both the elementary and secondary levels while continuing to provide for updates of district-purchased databases.

In addition, all resources, including the district catalog of resources (our Destiny application) needs to be available remotely and easily with a single sign-on for all students and staff.

37. Media: Implementing Technology Staff Development for K-12 Media Staff

As the district invests in Literacy, and embedding research in various curricular content areas, the need to develop and use technology for collaboration and integration will become even more important to our students. Classroom teachers and media specialists will be partnering for critical student learning. A fully developed media curriculum scope and sequence with classroom and technology teacher involvement is an important goal for our district. This will require joint professional staff development with current technology training for media, classroom, and technology teachers at both elementary and secondary levels.

38. Media: Mobile Technology

Media specialists teach research skills to students in collaboration with classroom teachers. By adding adequate mobile technology equipped with wireless Internet access, students will be guaranteed access to e-Resources, word processing, and graphic organizers to facilitate the research process in the library media center and in the classroom. Students using district mobile devices are able to access all district print and non-print resources. In addition, access to web resources beyond the district, as well as communication with subject experts, could be available to students. Likewise, building knowledge and collaboration with other students and staff beyond the school's physical space would become an important part of all research and academic work. These devices, like all other media center resources, would be shared throughout the building when not needed for information and technology literacy instruction.

39. Media: Textbook Inventory and Management System

The Media Department will develop and implement a system to receive, inventory, barcode, and track textbooks, including teachers' editions. This system will ensure students receive their textbooks promptly; textbooks can be managed district wide to ensure the correct amount of books are available for each class and accommodate changing student demographics over time. A textbook management system will minimize loss and provide timely access to the location of materials. By centralizing tasks, the system will save the district money by reducing duplication of effort, using non-teacher labor to accomplish tasks, and eliminate the need to purchase overages at each site.

40. Network Services: Backup System Upgrade

Our off-site backup system currently consists of a disk array for short-term backups and a tape library for long-term backups. Our existing disk array was implemented in 2003, and has since expanded to its maximum capacity. Our existing tape library has been upgraded once since 2003, but the tape technology is now 7 years old. Tapes today are nearly twice as fast with four times the capacity. The combination of these two aging units working together along with growing storage demands means that our existing end-of-month backups take 10 days to complete and require 12 tapes per month. Employing a new disk array and tape library will allow for future capacity growth, as well as reduce the time and effort required for end-of-month and end-of-year-backup tapes.

41. Network Services: File Server Consolidation to a VM Environment

Most physical file servers are not used to their full potential. Virtualization allows many virtual servers to share one physical host. This virtualization allows for more efficient and cost-effective use of the host resources, while spreading the cost for those resources across many applications. Virtualization also offers other benefits that are difficult to achieve in a physical environment, including the ability to migrate servers to new hardware, live, with no downtime; ability for servers to recover after hardware failure to a new host; and

decreased time to create new servers (minutes instead of weeks). Because of these benefits, applications using a virtual environment are able to take advantage of more resources as needed and the environment is inherently fault tolerant.

Currently, Genesis, Exchange 2010, and a few other applications are housed in a virtual environment. All physical servers have been identified, and their replacement scheduled based on a 5-year cycle. We have secured annual funding that will cover the costs of new VMWare servers and their associated disk space. Network Services will implement all new file servers in a virtual environment if the environment is supported by the application vendor.

42. Network Services: Implement Network Authentication and Access Controls

Currently, any user is allowed to connect any device into an open data jack in any district building and the device is automatically given an IP address on our internal network. While they would need credentials to access specific services, simply being on the internal network itself opens up many possibilities for unwanted behavior. By upgrading our network security settings it will allow us to always be aware of a user identity and determine if the device has adequate virus/spyware protection with recent updates and patches applied.

43. Network Services: Implement Tools for Internet Traffic Shaping

During the past several years, we have seen exponential growth in demand for Internet access across the district. There has also been an increase in the need for guaranteed performance for mission-critical Internet applications. Currently, staff and student access to Internet bandwidth is "first-come, first-served," with no mechanism in place to prioritize certain clients, Internet services, or applications. Similarly, there is no way to prevent a single user from using all available bandwidth.

Implementing a traffic shaping device will result in an immediate increase in network efficiency. The device will create an annual cost savings because it will reduce overall bandwidth requirements, while allowing mission-critical Internet applications priority to Internet resources. It will provide the ability to guarantee safe and reliable delivery of high-priority traffic such as online testing (MCA, GRAD, MAP), instructional multimedia, and cloud-based curriculum resources.

44. Network Services: Implement Wireless Controllers and Improve Wireless Access and Reliability

Several sites have reported that wireless slowdowns and disconnects are part of their working day. This challenge typically stems from a specific access point becoming overloaded with wireless clients. Currently, we have no way to balance the load across multiple access points at a building. We also cannot increase the density of wireless access points because they have no centralized management to coordinate activities. Wireless controllers would balance the load and allow us to increase wireless access point density.

To meet this need, the project includes implementing four Cisco wireless controllers. The controllers will help automate configuration and management tasks, and increase visibility, performance, and control. Centralized controllers also provide the wireless network with self-healing and self-optimizing capabilities.

We are experiencing exponential growth of wireless demands; with initiatives such as tablet expansion and BYOD (bring your own device), we expect this need to continue its strong growth. Once the wireless controllers are implemented, we will review our current wireless environment, identify areas needing improvement, and implement improvements.

45. Network Services: Network Infrastructure Upgrade

Our wired network infrastructure was replaced during the 2005-2006 school year. The implementation was very successful and the new wired network exceeded our performance and reliability expectations. Since then, network demands have increased and several new technologies have been introduced to our network environment. For the district to continue to provide fast and reliable network access and deliver the latest innovating curriculum initiatives, we must ensure the network infrastructure is capable of meeting these increasing demands.

The network infrastructure upgrade project will ensure that our network will continue to provide an easily accessible, secure, versatile, high-capacity, reliable technology infrastructure that provides access to information, services, and instruction in a variety of digital format. Upgrades to the network will provide the infrastructure for innovative curriculum, training, and administrative communications and will propel the district into a new era of technology-assisted education.

46. Network Services: Storage Area Network Upgrade

Each year, demands for data storage are increasing. Every district school, facility, and central department use the services that our storage area network (SAN) provide. A wide range of services, including mission-critical applications such as Genesis and e-mail rely solely on the storage area network. Our existing SAN was purchased and implemented in 2008. Technologies are rapidly changing, and soon the components of our current SAN will become obsolete. We need to replace our SAN to ensure we continue to provide fast, reliable, high-capacity storage that will meet our expanding storage needs.

47. Special Education: Staff Development Enhancements

Special education staff development needs are numerous and diverse. The special education department continues to seek ways to provide staff development that will better meet the needs of instructional staff. Technology will be used to train staff in more efficient and flexible ways. Applications will include podcasting and creating a staff development library of video tapes, audio tapes, and CDs. Other web-based training products will be reviewed for district application.

48. Special Education: Student Learning and Access

Because of varied student needs, assistive technology or other technology applications are often required to enhance student learning. As an ongoing effort to enhance student opportunities to learning, the special education department continues to explore best-practice technology applications in the area of assistive technology and student learning. Both the elementary and secondary special education teaching and learning specialists are involved in curriculum discussions and best practice applications.

49. Special Education: Student Plans Enhancements

Special education staff currently use the Student Plan system for all due-process paperwork, as well as several other systems. Planned enhancements include improving the MA Billing documentation and reporting, improving the Intervention documentation process, completion of Early Childhood Evaluation Reports in Student Plans, and improve the reporting options to include output that can be manipulated by users.

50. Special Education: Technology Tools

Special education staff are required to manage a number of activities in addition to due-process paperwork. We are developing technology tools to enhance these tasks to gain efficiencies and to allow staff more time to support instruction.

III. POLICIES, STANDARDS, AND PROCEDURES

The district maintains many policies regarding student equitable access, network security, and internet filtering. All policies are available on our district web site at www.anoka.k12.mn.us, where parents and community members have easy access. Network security audits are completed regularly and we pride ourselves on maintaining a secure network.

A. POLICIES

1. Equitable Access for Students

Access to technology is granted to all students equally, regardless of ability, race, or economic status. The district technology vision, goals, and objectives support equal access. However, funding and equipment limitations mean that all schools are not always equipped equally; in addition, all students do not have equal access to technology at home or in the community to support their out-of-school learning. The district strives to offer as much access to technology during school as possible, and to provide extended day learning opportunities, especially for those students who might not otherwise have technology access. The equitable access policy is available on our district web site.

2. Data and Network Security

Data and network security procedures are maintained by the Network Services Department and are updated continually. In addition, the district maintains policies explained in the following paragraphs.

a. *Acceptable Use Policy*. The *Acceptable Use Policy and Guidelines* were adopted by the school board on September 11, 1995 and most recently revised on September 13, 2010. The policy can be found on our district web site and outlines acceptable use of all technology resources, including:

- Voice, including telephones, cell phones, and voice mail
- Video, including television monitors
- Data, including computers and mobile devices, servers, and stored data
- Network, both wide area and local area, including connections to other networks via TIES and interdistrict e-mail
- Internet use, including out-district e-mail and Internet browsing, and student e-mail accounts

b. *Software Standards*. Hardware and software standards are reviewed and updated annually. The latest hardware standards can be found on the district web site at www.anoka.k12.mn.us. Our criteria for determining these standards are:

- Cross-platform versions of the product must be available.
- Aggressive educational pricing must make the product cost effective.
- Features must meet needs and be rated well, compared to competition in the same software class.
- Product support must be available.
- Time must be given for a smooth transition from current to new software standards.

c. *Guidelines on the Use of Personal Computer Equipment on the District Network*. We recognize that many employees own personal computer hardware that exceeds the specifications of the hardware that they may be using in their duties as district employees. These differences can lead an individual to use his/her personal computer for work-related matters rather than use the hardware that has been assigned by the district for such purposes. To manage the challenges this can place on technology support, data integrity, and information security, guidelines have been established to regulate personal computer use. This policy is posted on our district web site.

B. SECURITY AUDIT

We have taken measures to implement security policies that have been reviewed and revised with our acceptable use policy and guidelines that support them.

A firewall and redundant firewall have been implemented at the core of the network. Policies and rules are consistently being reviewed and revised to make the network as secure as possible. The firewall also consists of a DMZ area for public access and public secure access to data and resources. All web traffic leaving the district is encrypted and is using SSL and Verisign certificates. Strict authentication requirements have also been set up at the core of the network to access any internal data from the outside.

Student data privacy is paramount. We currently have processes in place that help us protect this data from unauthorized access and exposure to malicious viruses, trojans, and hackers. These processes alone are not enough. We need to be continually vigilant against attacks, ensure users are properly authenticated, and that users access only the data they need. This is accomplished by constantly evaluating data security products, periodically testing penetration, and employing an outside vendor to audit the system.

The district is formally audited annually with regards to our identity management and other data management and software development practices. We schedule a full security audit with an outside vendor every few years to ensure we are following current network security practices.

C. DISASTER RECOVERY PLANNING

1. Phone System Emergency Plan

The *Phone System Emergency Plan* details system design parameters that preclude a phone system disaster. The plan outlines several scenarios in which the phone system could be inoperable and how to take care of these problems. The plan is reviewed and updated annually by the Communications Technology Department.

2. Network Disaster Recovery

The *Data Disaster Recovery Plan* outlines plans regarding virus prevention, storage of critical data, district-wide backup procedures and recovery for servers and individual workstations. The plan is maintained by the network services department and is reviewed and updated annually.

D. ASSISTIVE TECHNOLOGY

The Individuals with Disabilities Education Act 97 (IDEA) requires that teams consider a student's need for assistive technology during evaluation and education planning. Assistive technology is the use of any item or piece of equipment used to increase, maintain, or improve the functional capabilities of individuals with disabilities.

To determine students' needs, we use a systematic three-step approach. During evaluation, we gather information to provide a functional evaluation of the student's need for assistive technology in their customary environment. After the student needs are identified, the IEP team develops the goals for the student. The annual goals the student is expected to accomplish will be the focus of the discussion about what assistive technology devices and/or services, if any, might assist or allow the student to accomplish them. The IEP team may determine the current interventions are working and nothing new is needed; may conclude that new assistive technology should be tried, determine features, and develop a trial plan; or need to gather more information to consider what assistive technology may be useful. This could be a simple process of using AT Consideration resources or district special education resources.

E. ADA COMPLIANCE

Our district web site has been checked for compliance with ADA and found to meet ADA standards.

F. INTERNET SAFETY AND CHILDREN'S INTERNET PROTECTION ACT (CIPA) COMPLIANCE

The district is in full compliance with CIPA regulations. After a careful review of available filtering systems, the M86 Security solution was selected to provide our filtering software. M86 Security content classification techniques, teams of human reviewers, including internet analysts, content verifiers, and content controllers together with our teachers, administrators, media specialists, and parents are thoughtfully selecting and updating the filtering categories we use.

This ongoing procedure for blocking or unblocking sites was developed by media services in FY2007. The media specialist in each school is responsible for submitting requests for all building-level filtering changes. Media specialists are also responsible for filtering questions and submitting change requests through a link on the Media Services web page. Teachers, students, parents, and administrators now have a simple way to ask questions or resolve problems. Media Services retains records of requests and directs technology services personnel to make recommended changes as required.

G. MINNESOTA ACADEMIC STANDARDS

Most of our curriculum areas use technology to deliver curriculum within which we have embedded the Minnesota Academic Standards. Our basic strategy includes determining what technology is most appropriate for our students in a particular curriculum area, and then embedding it into the curriculum as the curriculum documents are written or revised. Some of the delivery methods involving technology include LCD projectors, computers, calculators, and student response systems. Technology applications are used extensively in mathematics, language arts, social studies, science, physical education, and arts courses.

H. DISTRICT TECHNOLOGY LITERACY STRATEGIES

Our technology literacy curriculum integration strategies are based on the ISTE technology literacy standards (or substitute model for standards) and are currently being embedded into our existing curriculum.

I. DISTANCE AND ONLINE LEARNING

We currently provide distance learning opportunities, most effectively by using WebEx to connect students between buildings, teleteaching our homebound students, and connecting external content experts to interact with our students. We are using online learning in distinctly different ways in three different programs:

1. Compass Program is a state-certified online learning provider meeting the needs of the district's expelled students
2. Credit recovery programs are using vendor-developed online curriculum in both school day and after-school programs
3. Teacher-developed online courses are being offered for students in both fully online and hybrid formats (a combination of face-to-face and fully online)

Distance learning centers will be developed during the next 2 to 3 years to accommodate cross-district course instruction of low-incidence courses.

J. DIGITAL CURRICULAR MATERIALS

Curricular materials are provided in many curriculum areas for both teachers and students. Our current curriculum documents are provided to our staff through a district server or online access, accessible anywhere the internet is available.

Many curriculum materials are now offered by vendors in a digital format or on line. For example, most of the textbooks we now purchase also provide, as part of the ancillary materials, electronic versions of the textbook and extensions of concepts and/or online services containing the textbook and multiple extensions of concepts. The online extensions often include links to appropriate sites and multiple applications illustrating the concept in context. In addition, we are considering podcasting and distance learning as another delivery format.

K. DATA-DRIVEN DECISION MAKING

Our district has progressed to an expected norm of data-informed decision making. All schools have implemented professional learning communities (PLCs) to study data, set goals, develop action plans to increase student learning, implement the plans, and evaluate the results. Schools have staff and resources in place to support the work of collaborative teams in using data to impact student learning. All staff have access to the district data warehouse and have been trained to use the data warehouse capabilities to access data and help make decisions. Achievement analysts are employed to compile, analyze, and identify trends in a variety of data and support data use throughout the district.

L. COMPUTERIZED OR ONLINE ASSESSMENTS

We currently use NWEA's Measures of Academic Progress (MAP), a web-based software, for grades 2 through high school to assess student understanding of grade-level subject/standards and identify further instructional needs in math and integrated language arts, along with science in grades 3 through 5. Anoka-Hennepin also participates in state-mandated testing which is currently administered on line in science and as an option in math. In addition, at the secondary level, many courses use either online tests/quizzes, or use web-based reporting tools for tests that are scanned or uploaded electronically. Many textbooks also have online resources used by both staff and students.

The state testing plan to provide online testing for students has both an economic and logistical impact to schools. Test security and delivery is simplified by providing an online test in the sense that the test does not have to be physically distributed, collected, accounted for, and mailed. However, test administration, in the sense of limited lab and computer space, becomes increasingly more difficult with inflated class sizes. In addition, maintaining a testing protocol within the district to meet test vendor requirements continues to be a challenge as technical specifications keep pace with industry and web browser requirements. The technological capability of having all students test during a test window has ultimately required fixed labs (not mobile or wireless) to be identified primarily for testing and used for other curriculum needs when available, which also continues to grow in complexity with time. Computers used for vendor-specific purposes requires all labs to maintain relatively new software and network protocols on every staff and student workstation, posing financial hurdles as well.

M. COMMUNICATING WITH PARENTS

As we move our curriculum documents from a district-based server to a web-based online application**,** parents will have access to appropriate parts of the curriculum documents, allowing them to better view and understand the over-arching understandings of the curriculum program, as well as course-level understandings students are expected to capture. They will be able to see and understand more information about the course than they have in the past.

Our district web portal, A-HConnect, provides parents and students with the information they need, from class schedules, to emergency information, to grade books and more. All secondary teachers post their course grade book on line.

We currently use our ParentLink automated calling system to provide information via telephone to all parents within a school. Most of our schools make regular calls to homes informing them of the latest information about their school. This system can deliver a message to all parents in the school district within an hour. The system is regularly used to automate our secondary school absence reporting and is a great tool for our Child Nutrition Department to send reminders to parents regarding meal account balance.

IV. TECHNOLOGY INFRASTRUCTURE, MANAGEMENT, AND SUPPORT

A. EQUIPMENT SUPPORT MODEL

Our current equipment model does not meet the needs we have to deliver curriculum effectively. There are not enough fixed computer labs to be able to efficiently deliver state-mandated and district-directed online testing and we do not have enough mobile technology to be able to meet the needs. To address the need, we are asking our community to approve a technology levy in November 2011 that would provide consistent funding for technology at the rate of $3 million per year for 10 years. The levy approval is critical to ensure we can provide the technology needed to teach our students now and in future years.

Our minimum functionality equipment model includes:

- A ratio of 1:5 student-to-internet-connected computer K-12
- A ratio of 1:1 teacher-to-internet-connected computer
- A 4- to 6-year replacement cycle for student access computers (labs, media centers, classroom computers and/or mobile devices)
- A 4- to 6-year replacement cycle for teacher and building instructional support computers and/or mobile devices
- Classroom audio enhancement that includes an audio system capable of providing students with quality audio available commercially.
- Audio/video infrastructure that provides a content-based delivery mechanism to deliver the relevant video when requested by the teacher.
- Printing/multifunction devices (with paperless capabilities) that will meet the needs of our students and staff, while also reducing supply and maintenance costs related to our printers.
- An infrastructure/wireless access system that will keep up with the ever-increasing wireless technology needs.

B. TECHNOLOGY SUPPORT STAFF

Reaching goals successfully depends on technology support, both support of the hardware and software and support for the users. Support is critical for ensuring that technology is used efficiently and effectively. At the district level, we support our schools with:

- The *District Support Team* consists of centrally based departments/staff including the Communications Technology, Desktop Services, Information Services, Media Services, and Network Services departments who primarily support district administrative staff and functions.
  - The Communications Technology Department manages application access/identity management for the entire district, including casual, regular, and former staff; parents; and students. Identity management/account access includes managing accounts for Active Directory and Exchange; School Center (our district portal); Destiny (our library system); Genesis (our student information system); DPRS (Special Education software); Discovery Ed and NetTrekker (curriculum applications); myLearningPlan; and phone and voice mail accounts, as well as other applications. These accounts include all casual, regular, and former staff; parents; and students. The process is automated using Microsoft's Forefront Identity Manager (FIM) for casual and former staff, parents, and students. In addition, Communications Technology staff provides first-tier support to parents, staff, and students via our HELP desk line for questions related to our parent portal, A-HConnect, and any identity management-related inquiries.
  - The Desktop Services Department provides level II support for instructional and administrative computers and peripherals: Macintosh- and Windows-based operating systems; laptop and desktop computers, configuration and setup. Desktop Services creates and manages Macintosh

and Windows hard disk images of staff and student computers for district-wide distribution. The department also provides primary support for Macintosh and Windows antivirus servers along with central hardware and software support for district-wide Xserves. Another vital part of the department's responsibility is to work closely with site technology paraprofessionals and teachers and central staff to impart knowledge, solve problems, and guide them in keeping computers and printers operational.

The repair area of the Desktop Services department provides district-wide hardware repair and warrantee services for Apple, Dell, and HP computers. This includes managing Level II computer parts and accessories. Along with support for computers, the repair area provides primary support for networked laser printers throughout the district.

- The Information Services (IS) Department consists of people, data records, and activities that process, maintain, and archive the student data and information (using both manual and automated processes) for the entire district. Information Services is responsible for reporting student enrollments, membership, and attendance to the Minesota Automated Reporting Student System (MARSS), which in turn provides funding for the district. Student data is also submitted to the Discipline Incident Reporting System (DIRS) and State Educational Record View and Submission (SERVS) System, to meet state reporting requirements. In addition, IS provides first-tier support and management for our student information system and data warehouse for the entire district.
- The Media Services Department provides leadership in the use of eResources, rebuilding of print collections and developing a K-12 research process, and maintaining the video collection as an instructional resource. Materials that serve Title, ESL, and specialized curricular materials such as book sets are housed and managed in Media Services. Media Services houses and manages SEED materials and Challenge Reading, as well as an extensive professional collection. In addition, Media Services manages the repair services for video networks and some AV equipment. Media Services is providing leadership and guidance for textbook management and provides the expertise needed to circulate, track, retrieve, and inventory materials and equipment.
- The Network Services department provides primary management and support for the local area networks, wide area network, and related network infrastructure throughout the district. The wireless network infrastructure is an extension of the buildings' network consisting of 700 access points district wide and wireless controllers to manage these devices. Network Services also maintains central file and print, application, web, SQL, and VMware environment servers. These servers provide access to resources for staff, students, and parents throughout the district. Network Services staff manage data retention and archiving of all servers, installs and maintains network switches and routers, manages Internet delivery and content filtering, video services, network security, troubleshoots network problems, and provides ongoing support to building technology staff.

- Five *Instructional Technology Facilitators* are primarily responsible for developing instructional technology integration. The facilitators support technology teachers in the buildings, coordinate technology integration into the curriculum across the district, and directly support central curriculum departments and oversee numerous district-wide technology and information initiatives.
- Six *Integration Technology Teachers* share technology support for our elementary schools. They work with the Technology Teacher Leaders and full-time Paras at each elementary building with integrating technology in the curriculum, supporting classroom applications, and helping increase achievement in all curricular areas and levels.

Technology support in each building consists of a technology teacher, a media specialist, and a technology para. This support model maintains the school technology and strives to expand the use of technology in classrooms, multimedia labs, media centers, resource areas, and offices.

- The *Technology Teacher* is primarily responsible for assisting teaching staff with integrating technology in the curriculum, supporting classroom applications, and helping increase achievement in all curricular areas and levels. Technology teachers perform minimal hardware or software installation and configuration.
- The *Technology Para* maintains hardware and supports software, and works under the direction of the technology teacher.

- The *Media Specialist* is responsible for supporting research and responsible use of technology in each school and collaborating with other technology support staff in recommending, supporting, maintaining and integrating technology resources.

At our current technology support level, the technology teacher can be working with grade-level teachers in the elementary schools, with teams of teachers at the middle school level, and with the departments at the high school level helping all groups with integrating technology into their curricula. By facilitating discussions at each and every level, the technology teacher, together with teachers and an instructional technology facilitator, can identify instructional strategies that best fit each educational environment.

We believe teachers learning how to integrate technology into their teaching by working with their onsite technology teacher is an effective way for our students to become technologically literate by the end of 8th grade as required by the NCLB law.

The media specialist can play a critical building-level role integrating technology into curriculum. They should be teaching students to access, manage, integrate, and evaluate information; construct new knowledge; and communicate with others to improve learning. Together these lifelong skills, along with web site evaluation, personal internet safety, Boolean searching, and using the district eResources are vital parts of media curriculum for constructing knowledge and acquiring workforce readiness.

The Minnesota Academic Standards mandate teaching a research process in grades 2 through 12. If adequate staffing is available, media specialists will be taking the lead in supporting students and teachers in meeting this requirement. In addition, when both print resources and electronic resources are provided, they form the necessary basis for solid analytic and reflective research by our students.

Table 2 summarizes the staffing requirements to accommodate our technology support structure.

TABLE 2. TECHNOLOGY AND INFORMATION SERVICES SCHOOL BUILDING SUPPORT MODELS

School Type	Technology Teacher	Technology Para	Media Specialist
Elementary (note 1)	6 ITTs	1	0.5
Large Elementary		1	1
Middle School	1	1	1
High School	1	2 (note 2)	1
Alternative Sites/Special Programs	0.5	1	(note 3)

1. Each elementary has an on-site technology teacher that supports technology on a limited basis and is employed on an extra service agreement (ESA). The ESA covers time needed to assist with work direction to the tech para, attend technology meetings, and facilitate technology implementation/management at the school
2. Some high schools “buy up” to achieve 2 technology paras
3. Training on eResources provided by Media Services

Using our needs identification and decision-making process (refer to Figure 2) we will continually evaluate our central and school technology support model, by reviewing staffing levels and modifying our support structure and/or FTE allocations when feasible and as appropriate. Examples of challenges we face are included in the following paragraphs.

Our school district contains a very large number of computer devices. There is a need for enhanced central support to maintain and troubleshoot more than 15,000 computers (Windows and Macintosh platforms) and peripherals. In addition, improved support is needed to create images and keep critical workstation operating system software (e.g., Mac Lion, Snow Leopard, Leopard; Windows 7 and XP; and iOS) tested and running efficiently with district-wide applications and adopted hardware. Application testing is also needed on different versions of the many operating systems.

Support for Macintosh and Windows management tools is essential to decrease the amount of time required for our site-based technology staff to deploy and manage software in computer labs and staff/student computers throughout the district.

With the exponential growth and adoption of mobile devices in the organization, IT staff have been faced with an array of challenges to meet the growing needs of end users. Client management software is currently being evaluated; however, additional support staff may be needed to implement, deploy, administer, and maintain such software on a daily basis. Currently, Macintosh devices throughout the district are being managed independently and manually, which makes installing and customizing software applications very difficult. Client management software would ensure that software applications stay up to date on all district computers.

As BYOD and other initiatives are introduced, network demands are evolving because several new technologies have been introduced to the environment. If we are going to provide a fast and reliable network that can deliver the latest innovative curriculum initiatives, we must ensure we have adequate network support to meet the requirements.

V. ROLE OF SCHOOL MEDIA CENTER

A. MEDIA CENTERS

All K-12 schools in the district have media centers. Alternative schools have designated areas for program and district resources.

B. MEDIA AND TECHNOLOGY PLAN DEVELOPMENT

All building-level media technology staff report to their building principal. This relationship results in the development of media technology curriculum, programs, and services that are responsive to the needs of each individual building and adapted to the needs of students and staff. Many media center teachers are actively involved in the technology planning process in their buildings.

In 2010, best practice groups were formed at the elementary and secondary levels to evaluate technology for Anoka-Hennepin. These groups, consisting of 20 members at each level, have made recommendations regarding the adoption and curricular use of technology. The groups have recommended the adoption of mobile technologies to increase the ratio of computers to students, improve student learning, and increase student access to internet resources. At the middle school level, media specialists and technology paras are partnering on a program to introduce students to the information and understandings that keep them safe while using technology and sharing information on social networking sites.

The issue of careful planning for materials management is critical. We need to supply students and staff with the best resources; we must husband them carefully, track them efficiently, and match them with student needs. This is a district imperative. We must, as an interconnected system, be able to link materials inventory with budget and finance, instructional needs, communication, administration, and human resources. This is the way we can marshal our resources to ensure Anoka-Hennepin will effectively educate each of our students for success.

C. HOW MEDIA CENTERS SUPPORT INSTRUCTION

Currently, all media centers are supporting instruction at various levels. Pre-K-12, they are supporting language arts, social studies, and science, and are currently involved in planning for their role in primary and intermediate writing. The state of Minnesota is recommending that media specialists support technology and information literacy in all content standards as they are revised.

Research supports that integrated and authentic instruction between classroom and media teachers results in higher achievement, as well as supporting the research process, technology integration, and reading instruction.

District wide, media specialists are seeking support from principals and district administration to work more closely with classroom teachers to support instruction that is media rich and will enhance instruction for all students. This could include, but is not limited to, participating in assessing and grading student projects with all staff. The media specialist is viewed then as a partner in resource-based teaching and differentiated instruction while being directly involved in authentic assessment and project-based learning.

Media supports literacy instruction by managing the bookroom located in each elementary school. Media specialists catalog and label book sets, kits, and materials for reading instruction. These diverse and leveled collections are essential for instruction and tracking these materials ensure that teachers will find the material they need for their students.

D. ASSISTING TEACHERS IN USING TECHNOLOGY APPLICATIONS

Both integrating and assisting teachers with technology is taking place in Anoka-Hennepin schools. The degree at which this is happening is directly tied to the availability of the media specialists and technology staff at each school and the technology resources and equipment available.

In secondary schools, technology staff, classroom teachers and media specialists are working together to create learning experiences that include research, resources, and responsible use. Teaching with our e-Resources and their media area licensing knowledge, media specialists are creating rich learning experiences supporting and

assisting teachers with many forms of technology. However, the goal to have 50 percent of a class be able to access online resources at one time has not yet been realized.

In elementary schools, media teachers are seeking both time and resources to work with classroom teachers using technology. In some schools, with adequate technology resources and equipment, this collaboration is taking place within several curricular areas and using on-demand technology staff development. Unfortunately, this is not the rule, but the exception. However, principals are beginning to see the value of an on-site full-time curriculum integration specialist and are considering the merits of a flexibly scheduled media specialist to fill that role. Currently, according to the rubric used in the Minnesota Standards of Effective School Library Media Programs, elementary would be considered at a minimum level and secondary at the standard level regarding assistance of teachers in the area of both print and nonprint levels and assistance.

Although Anoka-Hennepin has some great resources in place, the level of technology access, use, and integration leaves much room for improvement in the next few years. Media teachers and their classroom partners are looking for more time together and greater technology access to partner for improved technology integration for both their own teaching and educating students.

E. INFORMATION AND TECHNOLOGY LITERACY STRATEGY

The media department supports both the International Society for Technology in Education (ISTE) and the Minnesota Educational Media Organization (MEMO) standards as the instruments for technology strategies and measurement in our district.

With regard to information literacy, the media department and district media teachers support and teach students to formulate questions, gather information from a variety of sources, evaluate information, and to organize ideas and make conclusions as they read, view, or listen to media. It is through the research process that students integrate literacy into their curriculum studies and later into their daily lives.

F. BUDGET

Since 2007, district media centers have benefitted from a multiyear plan to provide consistent, predictable funding for building curriculum-based library collections. These funds came after much planning and committee involvement. The funding formula appears to satisfy some of the unique and highly divergent needs of specialization schools, diverse populations, and schools with very low financial support from outside organizations like their PTOs or from grants.

However, building-level support for comprehensive library collection development still appears inconsistent and sporadic at best. Because reading scores tend to rise with the number of books per student as well as the number of books read per student, a robust collection is essential. Libraries impact student success directly. Voluntary reading results in better reading comprehension, writing style, vocabulary, spelling, and grammatical development.

For those buildings that have the financial means to provide resources for curriculum, supporting reading, and purchasing recreational reading material for students, collections are growing and improving. In buildings without the funding, this is adding to the current equity problems being experienced in our district.

Staffing is also an area that is in need of improvement. As our district mandates and moves forward with research, technology, and information literacy skills for all students, as well as providing the resources required for vital learning, all schools need full-time media specialists.

Library Media programs exert a measurable impact on test scores, setting a goal of one full-time library media specialist for up to 600 students, prorated for larger enrollments. A goal of one full-time media para for up to 800 students, again prorated for larger enrollments, would go far in supporting a quality, student-centered program.

Information from many media centers indicates that current staffing needs do not meet the needs of staff and students. Areas to be reviewed and improved include eliminating traveling media specialists and freeing paras from multiple roles in the schools, both of which are creating access problems and services lost. Media specialists responsible for more than one school are unable to partner with classroom teachers for research or technology and information literacy skills development.

Media specialists have indicated a need to have job descriptions that reflect the true nature of their jobs and the jobs of the media paras who work in media centers. Every school library media center needs an on-site certified library media specialist. More than 18 studies show student achievement increases an average of 10 to 20 percent when school library media centers are staffed with certified library media specialists.

G. ONLINE INFORMATION RESOURCES

The district has one of the most comprehensive and highly developed systems of online resources available in the state. These databases, resources, and Curricu-Links are used for curricular work in most, if not all, schools and are prized by teachers, media specialists, and students alike. Unfortunately, in many media centers, these resources can be accessed only by a small percentage of students in each class. The need is great to increase computer access to these resources by creating the recommended ratio of two-students-to-one-computer search stations. Most of these resources are available remotely to all district families and promoted through media services and all district schools.

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VI. STAFF DEVELOPMENT AND TRAINING

A. STAFF DEVELOPMENT PLAN

Staff development for teachers and administrators in the use of technology for delivery of instruction and/or school district/school administration is ongoing. One of our major staff development opportunities is our Summer Institute, an 8-day experience in August providing a wide variety of staff development opportunities for all staff, including extensive training in the efficient and effective use of technology. Sessions specific to curriculum areas are included, as are sessions on using our communication systems, general application software, and different technology hardware such as computers, student interactive devices, interactive whiteboards, LCD projectors, and calculators.

When new technology (software or hardware) is rolled out, training is implemented to assist users in developing the knowledge and skills necessary for successful use. This training is conducted by teaching and learning specialists, information services staff, achievement analysts, and/or by the technology teachers, media specialists, and paras in each building. Continued support is provided by the district-level technology teaching and learning specialists, media specialists, building technology teachers, and paras. The ultimate goal of staff development is that it focuses on integrating technology and information literacy into the curriculum to improve student achievement.

Staff development is provided throughout the year in the use of our data warehouse. This training is provided by our Research Evaluation and Testing Department and curriculum area teaching and learning specialists. New teachers are provided staff development prior to the start of the school year in the use of our district software and hardware. District instructional technology facilitators, building technology teachers, and technology paras provide ongoing training and/or support to building-based staff regarding all technology and technology application issues.

1. Atomic Learning

The district currently has a subscriber license for Atomic Learning, a web-based service that breaks down software programs and computer skills into fast-loading tutorial movies played right over the internet. It breaks learning into tiny "atom" sized pieces. The narrated tutorial movies are only 30 seconds to 3 minutes long. Each addresses a specific user question or software technique. These tutorials are used by both staff and students to expand their technology skill sets. We also produce our own series of tutorials aimed at district-specific applications and processes. Students also use the resource to support their learning. A specific example of this is student use in many of our business/computer applications courses. Our license also allows students, parents, staff, and residents of our community to access the Atomic Learning tutorials from home.

2. TIES Learning and Technology Agreement

Created in 1967 as a nonprofit consortium to provide technology and information resources to school administrators, educators, and students, TIES is owned by 37 Minnesota member school districts. These districts represent about 400 schools with a total enrollment of more than 245,000 students. As a TIES-member district, we receive full-day workshops taught at district sites; in addition, staff can attend an unlimited amount of classes offered at the TIES training center at no additional cost.

3. Staff Development

The district has a staff development committee which funds various activities for staff to use for technology training. Staff development includes a ½-day technology workshop for all new teachers, technology sessions during regularly scheduled district staff development days. Topics have included e-mail, Genesis student learning programs, staff productivity applications, web authoring, and video editing training for staff, 1 day per month in-service for all technology paras, and 8 days of in-service for each building technology teacher. College credit technology courses are offered evenings at the staff development center.

4. "Just in Time" Training

Each building has a technology teacher and para to assist building staff with technology needs. These staff are on site to train staff "just in time" when they need it.

5. Training for Integrating Technology into Instruction

Professional development plans for teachers and media center staff also emphasize integrating technology as a teaching tool. This level of targeted training support is provided by:

- District technology integration classes and curriculum integration writing sessions
- Curriculum-specific technology integration classes offered by facilitators and building technology teachers before and after the school day
- Exemplary grants with technology emphasis or component funded by the district staff development committee
- Teams of middle school teachers will meet and begin to explore the NCLB technology standards to place them in the curriculum where they will integrate the best.

6. eResources

Anoka-Hennepin is one of the highest user districts of online subscription resources in Minnesota. We actively promote the use of our high-quality online resources by direct instruction for students, staff development for teachers, and demonstrations for members of our community. We issue laminated "remote access cards" listing usernames and passwords. At the district level, we have issued more than 40,000 cards to users. Several schools have personalized the cards for their own building and issued those to students and parents. We also have a link on our web page, allowing community members to request their usernames and passwords via e-mail.

B. INFORMATION/TECHNOLOGY LITERACY REQUIREMENTS

Information and technology literacy requirements are built into our Performance Appraisal System (PAS) and administrative staff and are optional in the teacher PAS.

C. INTEGRATING TECHNOLOGY WITH INSTRUCTION

Many teachers are not sufficiently trained to integrate technology with instruction. The training we provide is limited by available training days and lack of money available for staff development. We do provide the following training to integrate technology with instruction:

1. Technology Education Curriculum Connections

Technology Education Curriculum Connections (TECC) activities are a set of K-5 lessons that use technology as the primary instructional tool in teaching some aspect of the district curriculum. The lessons were developed through a collaboration of classroom teachers, curriculum specialists, and integration technology teachers. Based on national technology standards and the Anoka-Hennepin scope and sequence for technology skill acquisition, each TECC activity lesson includes the curriculum connection, student templates, step-by-step teacher directions, browser bookmarks (when appropriate), and an activity summary, making them easily taught by classroom teachers and media specialists.

2. Curricu-Links

Curricu-Links is an online project that identifies internet resources for use by classroom teachers and students in the district. The emphasis is to find resources that align with existing curriculum and display links to these sites in a clear, easy-to-use manner.

3. Reference Databases

Our databases include a wide range of reference books used to support curriculum in the areas of science and social studies, as well as reading and ILA. These resources are available to staff and students from all district computers and also remotely. In addition, we offer a collection of more than 500 professional journals on line.

4. High School Physics

Software and hardware were purchased for high school physics courses to increase student opportunities to deepen their understandings and to participate in authentic problems, and for the teachers to increase their use of constructivist pedagogy. Constructing Physics Understanding (CPU) is a software-based curriculum developed at San Diego State University and the University of Minnesota through NSF funding. This

curriculum truly embraces the role of the teacher as guide and mentor with the course materials, providing support and structure for student groups. The program incorporates computer technology to provide an environment where learners can construct knowledge in physics. The curriculum units and the simulation software are guided by an inquiry-based pedagogy.

D. ADMINISTRATIVE STAFF

School administrators have access to the same training as our teachers. Using technology as an administrative tool is part of their performance assessment system.

E. CHALLENGES

We have three identifiable challenges to provide significant technology staff development in our school district. First, there are very few required days in which to provide the necessary staff development opportunities. The Summer Institute in August is voluntary for staff. Although about one-third of licensed staff attends, there are still two-thirds who do not. During the school year, there are only 1 or 2 days (depending on the year) we require staff to attend a staff development activity. These are usually based in instruction strategies and not the delivery of curriculum with technology.

Second, if we had a day devoted specifically to helping teachers deliver curriculum more efficiently and effectively with the use of technology, there would not be enough equipment in the district to accomplish the staff development.

Third, we know from research that a one-time staff development event is not sufficient to produce a significant change in practice. Ongoing support and “coaching” is needed. We do not have a sufficiently large technology support team to provide the one-on-one or small group support necessary for effective change. By providing a team based on our optimum functionality model, we can begin to implement a broader support model with on-time, just-in-time technology staff development.

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VII. BUDGET FOR TECHNOLOGY

A. BUDGET DEVELOPMENT AND ADMINISTRATIVE POLICIES

The following budget policies of the Board of Education guide the preparation and administrative of this budget and help us monitor technology expenditures.

1. Budgets and Budgetary Accounting

Budgets are adopted on a basis consistent with generally accepted accounting principles. Annual appropriated budgets are adopted for the General, Special Revenue, Debt Service, and Capital Projects funds. All annual appropriations lapse at the end of the fiscal year.

The annual adopted budget may be amended in the General, Special Revenue, Debt Service and Capital Projects funds unless such funds as a group have an unreserved deficit fund balance that exceeds 2.5 percent of expenditures. This condition is referred to as "statutory operating debt" and must be retired through subsequent operating surpluses in accordance with a "special operating plan" approved by the Minnesota Department of Education. Budgeted amounts are as originally adopted or as amended by the school board.

Total fund expenditures in excess of budget require approval by the school board. Spending control is established by the amount of expenditures budgeted for the fund, but management control is exercised at line-item levels.

2. Operating Budget Policies

The district will cover current expenditures with current revenues and avoid budgetary procedures that cover current expenditures at the expense of meeting future years' expenditures, such as postponing expenditures, accruing future years' revenues, or rolling over short-term debt. The budget will provide for adequate maintenance of capital, plant, and equipment, and for orderly replacement of equipment. The district will maintain an interactive online budgetary control system to assist in following the budget plan and prepare monthly reports comparing actual revenues and expenditures to budgeted amounts. An independent public accounting firm will be selected by the School Board to perform an annual audit, and will publicly issue its opinion on the district's financial statement.

B. BUDGET

Our technology budget for fiscal years 2012 through 2016 is provided in Table 3. A costing summary of our instructional technology-based plan requirements is provided as Table 4. Table 5 provides the District capital budget plan for FYs 2012 through 2016. Some line items in Table 5 are used directly for technology, such as MS industrial tech labs. Other line items are used in part to fund technology items, such as curriculum equipment or site-based equipment funds. Our goal is to provide consistent funding sources, an example of which is that we provide a 4-year lease payment for our office computers through several budget line items and pay our LAN capital notes from our network equipment and phone system/e-mail budgets. Figures 3 and 4 indicate funding sources for technology, both current and future solutions. Table 6 presents a matrix explaining what department/entity in the district is responsible for funding technology. Table 7 itemizes legally available funding sources for Minnesota school districts and indicates where Anoka-Hennepin could or does obtain funding.

TABLE 3. ANOKA-HENNEPIN TECHNOLOGY BUDGET ($K)

UFARS Object Code	Category	Description	FY12 Budget	FY13 Budget	FY14 Budget	FY15 Budget	FY16 Budget
100	Salaries and Wages for Technology Staff	District-level technology staff - does not include salaries and wages for building-level staff; 2.5% increase FY13-FY16	$1,897	$1,945	$1,993	$2,043	$2,094
200	Fringe Benefits for Technology Staff	District-level technology staff - does not include benefits for building-level staff; 2.5% increase FY13-FY16	$552	$596	$644	$696	$713
300	Purchased Technology Services	District-level miscellaneous services; 2.5% increase FY13-FY16	$93	$96	$99	$102	$105
	Consultant Services	District-level consultant services; 2.5% increase FY13-FY16	$111	$115	$118	$121	$125
	Communications	Includes cost for infrastructure and support, such as phone system and router maintenance, telephone lines, fiber, shared communications services costs for E911 services, etc.	$1,568	$1,568	$1,568	$1,568	$1,568
	Computer and system services	Includes TIES support contract and admin computer support service funds; 2.5% increase FY13-FY16	$672	$693	$713	$735	$757
	Technology workshops and conferences	Includes tech worksthops and conferences for district admin technology staff; 2.5% increase FY13-FY16	$23	$23	$24	$25	$25
400	Supplies and materials	District-level technology computer software, etc., both instructional and noninstructional; 2.5% increase FY13-FY16	$132	$135	$139	$142	$146
500	Capital expenditures	Technology equipment - refer to Table 5 this plan for details	$2,070	$2,070	$2,070	$2,070	$2,070
800	Other expenditures	Building shared costs for software subscriptions/services; 2.5% increase FY13-FY16	$165	$169	$173	$177	$182
	TOTALS		**$7,283**	**$7,410**	**$7,541**	**$7,679**	**$7,785**

TABLE 4. INSTRUCTIONAL TECHNOLOGY REQUIREMENTS			
Technology Project	**Ratio**	**10-year costing***	**Related goal from Section IIC/ Other Comments**
Student Access (labs, media center, & classroom computers and/or mobile devices)	1:5 student:internet-connected computer K-12	$16,047,000	18, 19, 21, 22, 38 3 to 4-year replacement cycle mobile devices 4 to 6-year replacement cycle student access computers
Teacher & building instructional support (computers and/or mobile devices)	1:1 teacher:internet-connected computer	$4,844,400	17 3 to 4-year replacement cycle mobile devices 4 to 6-year replacement cycle bldg. instructional support computers
Interactive technologies for classrooms (online, distance, interactive learning)	1:classroom	$1,429,700	21, 22, 26
Classroom projection	1:classroom	$2,928,000	23
Classroom audio enhancement	1:classroom	$1,366,400	13
Audio/video infrastructure updates/replacement		$1,600,400	14
Printing/multifunction devices with paperless capabilities		$990,900	25
Infrastructure/wireless access		$793,200	15
TOTAL TECHNOLOGY IMPROVEMENTS FOR SCHOOL INSTRUCTION		**$30,000,000**	

***Through FY22**

Student:Computer Ratio starting 7/1/2012	Age of computer ≤ 3 years: **28:1** Age of computers 3 years thru 6 years: **9:1** Age of computers > 6 years **7:1** If you were to include ALL computers age 0 through 10+ years, ratio is **4:1**
Percentage computers by age starting 7/1/2012	≤ 3 years: **16.61%** 3 years thru 6 years: **41.78%** > 6 years: **41.62%**

TABLE 5. CAPITAL BUDGET PLAN – FY12 THROUGH FY16 ($K)

PROJECT/EXPENSE	FY12	FY13	FY14	FY15	FY16
Site-based facilities funds **(5)**	$725	$725	$725	$725	$725
Site-based equipment funds **(1)**	1,300	1,300	1,300	1,300	1,300
Alternative ed facilities and equipment **(7)**	105	105	105	105	105
LC/DC – ESC Facilities	100	100	100	100	100
District-wide facilities	975	975	975	975	975
Special education facilities	200	200	200	200	200
Pools/child nutrition facilities	40	40	40	40	40
Parking lot expansion	50	50	50	50	50
Special assessments from cities	50	50	50	50	50
Noncluster equipment **(1)**	330	330	330	330	330
Vehicle replacement	50	50	50	50	50
Noncluster technology	735	735	735	735	735
Network equipment maintenance	150	150	150	150	150
Phone/e-mail maintenance	90	90	90	90	90
LAN equipment payment **(9)**					
TIES payment **(6)**	950	950	950	950	950
Student data project/maintenance/5 years	45	45	45	45	45
Curriculum equipment	332	332	332	332	332
Musical instrument replacement/5 years	45	45	332	332	332
Library book replacement	200	200	200	200	200
Text books **(8)**	1,384	1,384	1,384	1,384	1,384
Electronic library **(8)**	116	116	116	116	116
Replace industrial tech equipment/6 years					
MS industrial tech labs/7 years **(2)**					
Secondary Science Labs if Needed	100	100	100	100	100
Reserve	823	823	723	623	523
Misc. annual expenses **(3)**	100	100	100	100	100
TOTAL	**$9,000**	**$9,000**	**$8,900**	**$8,800**	**$8,700**
ANTICIPATED CAPITAL FUNDS (4)	**$9,052**	**$9,000**	**$8,900**	**$8,800**	**$8,700**

NOTES:
(1) Photocopier leases are included under site and noncluster equipment totals
(2) Middle school technology lab transition was completed in FY11
(3) Misc. annual expenses include equipment repair/equipment loss/damage & insurance deductible
(4) Total capital funds are based on student population which is stable & capital funds are set at $205/student (43,975 students)
(5) STEP and Bell Center are included in facilities and equipment funding formula
(6) TIES payment should stabilize as student population stabilizes, but inflation costs will cause increase
(7) Alternative education receives this portion of the capital funds & is recalculated each year based on number of students.
(8) Textbooks and E-library should add up to $1.5M. Recalculate each year when we know E-library costs.
(9) This amount will be taken from capital allocation for the equipment note payments on network electronics. This will reduce the capital allocation for by that amount.

GRAY shading indicates when costs are ending
BLUE shading indicates curriculum-related expenditures
PINK shading indicates technology-related costs
GOLD shading indicates funds given directly to building for site-based decisions

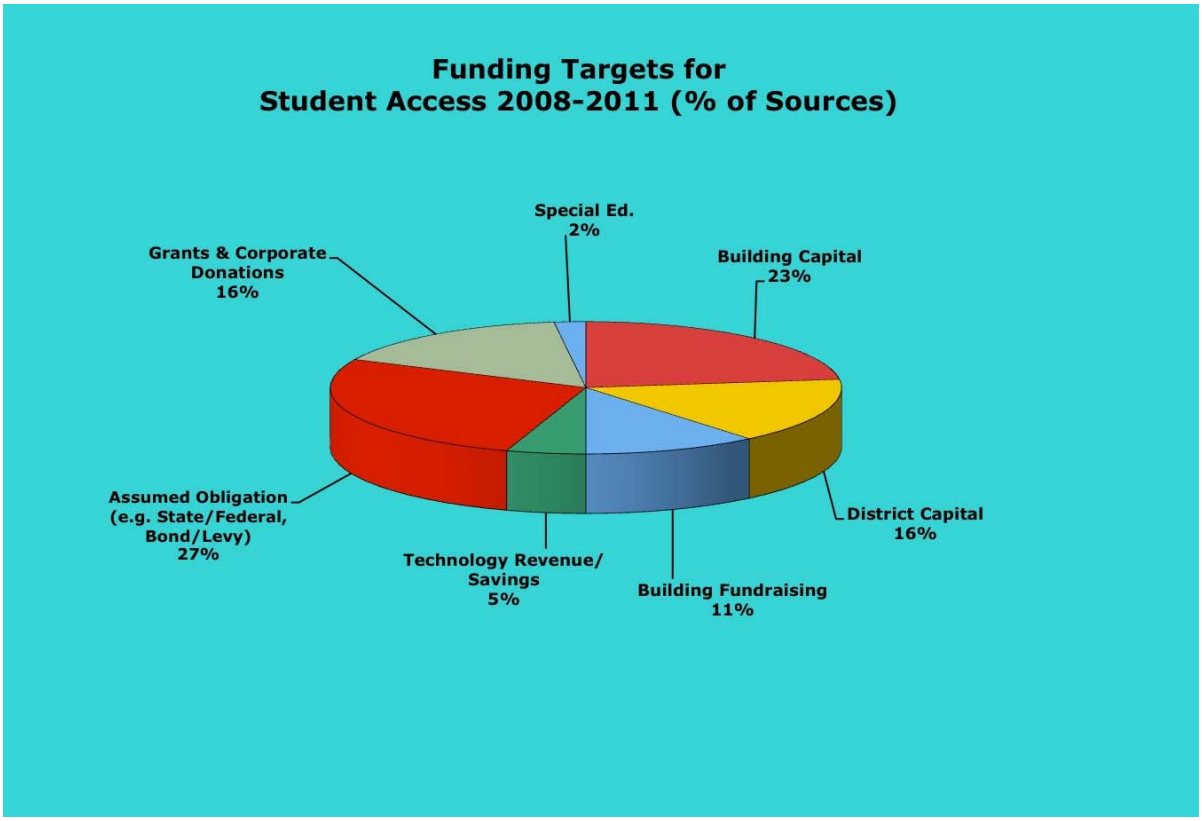

Figure 3. Funding Student Access (Current Solution)

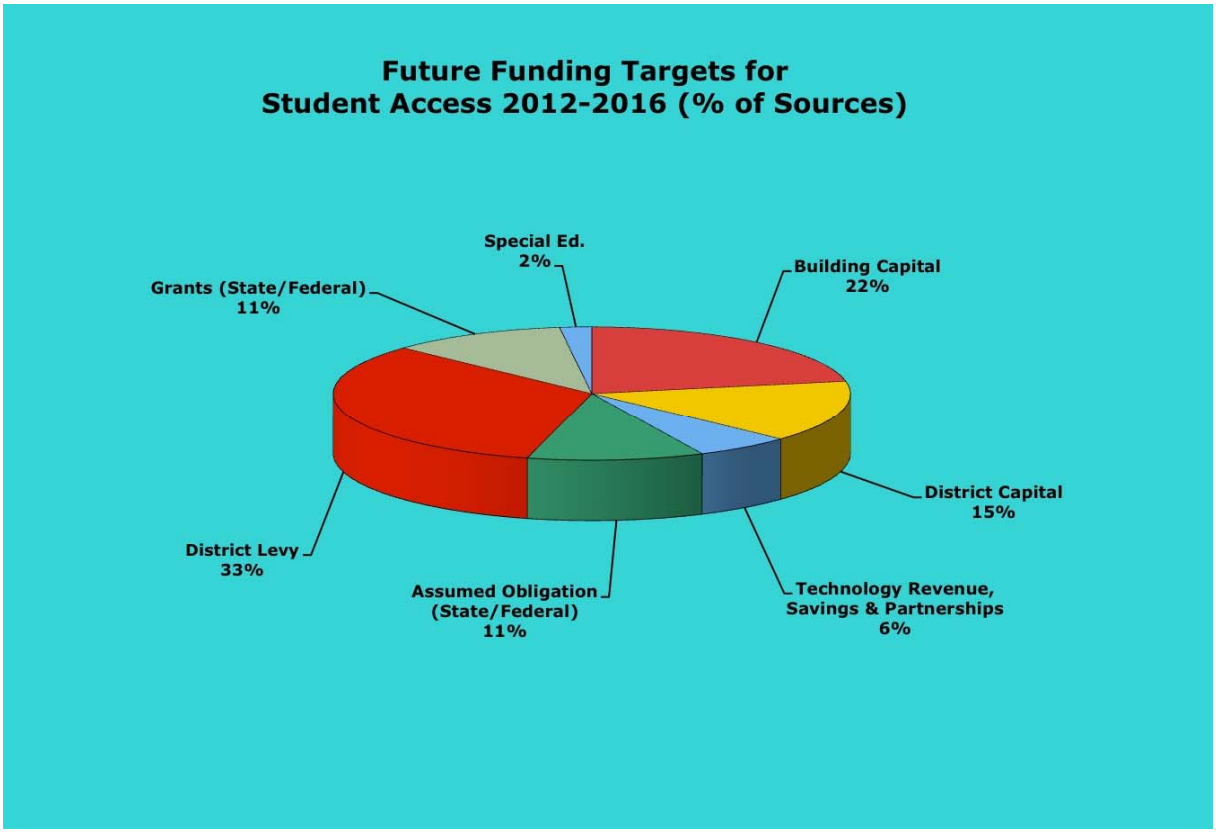

Figure 4. Funding Student Access (Future Solution)

TABLE 6. RESPONSIBILITIES MATRIX FOR TECHNOLOGY PLANNING, FUNDING, AND SUPPORT

Category	Department/Position That Identifies Need to TSC and Fund Coordinator	Support Lead	Encompasses
2008 LEASE/PURCHASE			
Teachers & Instructional Support Staff	Chief Technology & Information Officer	Technology Services	Classroom teachers, elementary specials, technology support , TOSA, SPED building-based, social workers, ESL teachers, homebound, teen parent, teleteaching, treatment center, media checkout stations
Building Administration and Support Team	School Principal	Technology Services	Principals, secretaries, counselors, paras (elementary and secondary) volunteer services coordinators
Alternative Programs	Principal, Crossroads Alt Principal, COMPASS programs	Technology Services	Alternative program building and DW staff
Student Services & Safety	Director of Student Services	Technology Services	Diversity building and DW staff, MEAs, ESL paras, Police Liaison
Special Education	Director of Special Education	SPED Technology Support Staff	SPED center based, itinerant, and DW staff
STEP	Director of Careers and Technical Education	Technology Services	STEP staff
Supplemental Programs	Director of Supplemental Programs	Technology Services	Supplemental programs building and DW staff
Central Administration	Chief Technology & Information Officer	Technology Services	Central administrative and Instructional DW staff
Child Nutrition	Director of Child Nutrition	Child Nutrition Technology staff	Child Nutrition site supervisors, assistants, building and DW staff
Community Education	Director of Community Education	Community Education Technology Staff	A+, ABE, Aquatics, Community School, ECFE, Preschool, CE DW Staff, Print Shop Staff
2010 LEASE/PURCHASE			
Building Administration and Support Team	School Principal, Special Education Director, Health Svcs Coordinator (Chief Technology & Information Officer is the Fund Coordinator)	Technology Services	Health Paras, LSNs, RNs
Warehouse/ Purchasing	Chief Technology & Information Officer	Technology Services	Purchasing and Warehouse staff at LCDC
Buildings & Grounds	Director of Buildings and Grouncs	Buildings and Grounds Technology Staff	Building supervisors, custodians, maintenance specialists, Central B&G

TABLE 7. TECHNOLOGY FUNDING MATRIX

Funding Source	Description	State or Local Funding Split	Vote Required	Capital Expenditures	Operating Expenditures
Capital Bonding	Bonds that cover the hardware cost; cannot have duration longer than the useful life of the equipment (15 yrs)	The bonds are equalized when the district's total debt level exceeds 12 percent of the net tax capacity.	Yes	X	
Equipment Notes	Short-term equipment notes, 5 years or less, can be used to purchase technology equipment	Funds to repay the notes come from operating capital funds that are transferred to the debt service fund for the duration of the notes.	No	X	
Operating Capital	The district receives $207.52 per pupil unit of operating capital revenue	Part state aid, part local levy	No	X	
Lease Purchase	The district may enter into lease purchase agreement to purchase technology equipment	Part state aid, part local levy	No	X	
Operating Referendum	The district can pass operating referendum to fund tech support costs	The state will equalize referendum levies. The district currently receives $1179 per pupil unit.	Yes		X
General Ed. Revenue	Currently $5174 per pupil unit ($5224 FY13)	The current split is 100% state ed aid	No	X	X
Down Payment Levy	A down payment referendum which would allow the district to set up a cash flow to help pay for technology	100% local levy	Yes	X	
Technology Access Revenue	New in FY2001; covers the communication costs related to technology	100% state aid	No		X
Various State Grants	State technology access grants	Varies with the grant	No	X	X
E-rate funding	This is a federal funding system that helps cover communication operating costs associated with technology	Aid or telephone line cost credits	No		X
Integration Grant	The integration revenue budget may include the purchases of technology for racially isolated school if it supports the district's integration plan.	The capital expenditures for equipment for this program will be funded with integration revenue	No	X	X
Royalties from software design and development	Partnership with private companies to develop marketable software		NA	X	X

VIII. IMPLEMENTATION PLAN

The district requires that specifically formatted planning documents be submitted for all projects requiring the collaboration of more than one department. Technology projects, in particular, benefit from these planning worksheets because almost every project we introduce involves technology, information access, and communication tools in some way.

In many cases, the implementation plan touches many departments, as shown in Figure 5. For example, our Teacher Analytics project started with teachers in the buildings needing better information to make informed decisions regarding the path a specific student would take to learn. Once the ideas were assimilated, representatives from instructional technology and information services collaborated on specifications and worked with building staff to choose the right solution. Building technology and support staff helped to test the solution and network services staff were needed during the whole process to ensure the solution was secure and that we had the correct hardware to support the solution. Similar interdependencies are prevalent in every project we work on.

Operational Support	**Learning and Instructional Support**	**Schools**
Employee Data Systems: -TIES/HRPay -Online Para Training -SearchSoft -Insurance & Benefits -Sub Caller System TIES Finance Edulog B&G Mainsaver & CAD PCS Revenue Control	Online Testing (MAP & MDE) MyLearningPlan MCA Scanning READ 180 ViewPoint Teacher Analytics eResources Destiny (library management software) Genesis A-HConnect Mastery Manager Discovery Education NetTrekker	-Integration of technology and information into classroom -Media & technology staff development -Activity fees -End user support of all centrally-provided applications

Media Services	**Instructional Technology**	**Information Services**	**Communications Technology**
-Integration of Technology and info literacy -Media center collections -Video request, reservation, delivery -Reconsideration of library materials requests -Video production & duplication -Internet filter -AV/Headend equipment repair & loans -Research standards -Specialized CIA, ESL, targeted services	-Integration of technology and info literacy -Technology staff development -Curriculum support -Departments/leaders -Desktop/image design -Instructional software testing -Instructional software configuration	-Census -MARSS Mandates -NCLB Report Updates -Genesis; student information management -EEPR/EEGR/ExpressBook -Report cards & custom reports -Data to support decision making	-Identity Management -Exchange -Phones -Voice mail -Technology billing -506-HELP; servicing parents, staff, students -Single Sign On solutions -LDAP data -Application account management -Destiny data support

Building Technology and Media Leadership and Support Staff

Desktop Services and Repair

-PC/Apple software/image testing -PC/Apple hardware repair -Hardware recycling -Tech staff training -Printers -Building support help desk & troubleshooting -Parts -Media repair

Network Services

-WAN -LAN -Internet access -Physical security -Applications Servers -NOS -File/print services -Network security -Storage and recovery -VMWare -Virus protection

Outsourced Services (TIES, SchoolCenter, etc.

Figure 5. Organizational Layers and Interdependencies

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IX. EVALUATION PLAN

The status report on our previous plan goals is provided as Table 8. As shown in Figure 2, the district has assigned a technology plan management and monitoring team, whose charter is to track plan progress and report that progress to the school board annually. Members of this team include a school board member, the Chief Technology & Information Officer, and the Communications Technology Manager. This team will meet periodically to discuss status of plan goals and assist departments, where possible, in meeting those goals.

TABLE 8. PREVIOUS PLAN GOAL STATUS

Previous Plan Goal	Status
Business Services: student fee management	Ongoing project
Child Nutrition: automated calling system	This project has been completed. Our ParentLink automated calling solution makes approximately 15,000 calls per week reminding parents of low balances. These calls have helped Child Nutrition maintain a much lower accounts due balance. We will continue to enhance the system as technology improves.
Child Nutrition: universal meal PIN and mobility	This project has been completed.
Child Nutrition: update computer hardware in school cafeterias	This is an ongoing project.
Child Nutrition: web-based parent/guardian access to CNP information	This project has been completed. We will continue to expand capability to include online payment and meal account management for staff accounts.
Communications and Public Relations: Anoka-Hennepin blogs	This project was abandoned in favor of biweekly Superintendent voice mails to all staff.
Communications and Public Relations: online streaming video	This project is complete. Video streaming of our School Board meetings are now available through our District web site.
Communications Technology: e-mail system archiving to meet Federal requirements	The district is meeting Federal Requirements for e-mail archiving without the need of an expensive archiving system.
Communications Technology: enhance ParentLink system by adding Language	Complete. Buildings are sending ParentLink messages in different languages.
Communications Technology: improve staff identities process	Communications Technology is currently managing more than 8,000 staff accounts. More than 3,000 are being provisioned automatically through our Microsoft Forefront Identity manager (FIM) process. We have changed our process for 5,000 more staff accounts to create them by the time the staff member starts work. We are continually changing our process with the goal to provision all staff accounts, if feasible, using FIM.
Communications Technology: service oriented architecture	Ongoing. We continue to integrate our applications using a SIF interface as well as single sign-on (SSO) solutions through LDAP authentication or custom tokens. This technology is constantly evolving and staff are actively implementing various solutions that help us integrate data and account management between applications. We are currently working with our portal and several other application vendors to use OpenI.D. as a standard for passing authentication information from our portal to subscribing applications.
Communications Technology: upgrade district Exchange servers	This project will be completed in December 2011.
Community Education: print shop technology replacement and enhancement	We have acquired a single-pass, two-sided Ryobi Perfector Press, which reduces down time and improves quality. We have acquired a Secap SA3100 Inkjet Labeler which enables us to receive addresses in digital format and print directly onto the item being mailed. This labeler reduces labeling costs and production time, and improves turnaround time. We have networked all the duplication equipment and created electronic customer request documents, which simplifies the request process, reduces turnaround time, and improves duplication quality. We are currently working with our existing duplication vendor to identify and implement a workflow management system that would enable customers to identify the status of their work order.

TABLE 8. PREVIOUS PLAN GOAL STATUS

Previous Plan Goal	Status
Community Education: upgrade technology solutions	Implementation of flyer distribution software has been completed. We are currently implementing EZCare school age child care software and rSchoolToday class registration and facilities scheduling software. EZCare addresses customer expectations, improves staff productivity, reduces program costs, allows online customer registration, enables electronic invoicing and payment, enhances management and mandatory reporting, and improves PCI compliance. rSchoolToday will enable online customer registration, electronic invoicing and payment, integration with facility scheduling and activity planning, and present a single face to our customers for all Community Educatino programs. Both software solutions, once integrated with the K-12 single point of entry software will enable the district to determine program impact and track students as they progress through our system. EZCare and rSchoolToday's class registration solutions will be completed in Fall, 2011. The rSchoolToday activity planning component was completed Spring, 2011.
Community Education: volunteer management software	This project has been completed.
Curriculum: audio-enhanced classrooms	Ongoing project. This may become a priority item as class sizes continue to increase. We continue to use the Panasonic unit from a variety of vendors.
Curriculum: building-wide wireless access	This is an ongoing project. We continue to install wireless devices in all of our buildings to facilitate access for mobile labs and devices.
Curriculum: establish consistent classroom computer replacement cycles	We are working with the state of Minnesota to establish consistent technology funding.
Curriculum: common assessment tools	We have implemented a contract with GlobalKnowledge's MasteryManager application. We started a pilot testing process with one middle school in Spring 2011 and will implement other secondary schools during the 2011-2012 school year.
Curriculum: establish consistent student access computer replacement cycle	Buildings have updated their inventories and 5-year plans to help identify where replacement needs are the greatest. We continue to seek a viable and consistent funding source to allow for this type of long-range planning.
Curriculum: increase technology support staff	Ongoing project. We have added five integration technology teachers at the elementary level to provide building-level curriculum integration support. These positions were originally funded through stimulus money but have now been converted to a consistent funding source.
Curriculum: interactive TV distance learning	Ongoing project. We are expanding our online course offerings. A teaching and learning specialist has been hired to facilitate the development and delivery of additional online opportunities. We continue to expand supporting technologies such as AHApps, SchoolCenter web sites, Moodle, and WebEx.
Curriculum: interactive whiteboards	This is an ongoing project. Buildings continue to purchase interactive whiteboards (Elem and MS – Promethean, HS – SMARTBoard) as capital funds become available. We will continue offering staff development opportunities through Summer Institute and individual building staff development allocations. Summer writing teams are incorporating materials from these products into current UBD documents.

TABLE 8. PREVIOUS PLAN GOAL STATUS

Previous Plan Goal	Status
Curriculum: LCD projectors	This is an ongoing project. Curriculum dollars were again designated for purchases during the summer of 2011. Buildings are also committing capital dollars toward this project. We continue to move closer to the goal of a mounted projector in every classroom.
Curriculum: non-computer technology devices	This is an ongoing project. These purchases are typically made as part of a materials adoption for courses. Central curriculum capital money is used with additional devices purchased by buildings. Instructional technology facilitators are involved in the materials adoption process to help ensure devices meet all technology requirements.
Curriculum: podcasting	Ongoing project
Curriculum: printers/scanners	This goal is being modified. We are moving toward a more paperless environment which lessens the need for printed materials. We are piloting a print management solution to help reduce printing costs.
Curriculum: provide UnitedStreaming and NetTrekker d.i. for all schools	Ongoing project. United Streaming is now called Discovery Education Streaming Plus. We will continue offering staff development opportunities through Summer Institute and individual building staff development allocations. Summer writing teams are working at incorporating materials from these products into current UBD documents. We continue to work with vendor developers to improve the administrative functions of both products.
Curriculum: replace classroom computers with laptops	This has been accomplished in two of our elementary schools. Cost constraints have not allowed us to provide laptop computers for all teachers.
Curriculum: streaming video	This was implemented with our Discovery Education Streaming Plus solution.
Curriculum: student response devices	Ongoing project. These purchases are typically made as part of a materials adoption for courses. Central curriculum capital money is used with additional devices purchased by buildings. Instructional Technology Facilitators are involved in the materials adoption process to help ensure that devices meet all technology requirements. We have purchased student response devices for elementary physical education. We are exploring the use of other mobile device solutions.
Health Services: health office visits application	
Information Services: A-HConnect Parent Portal	With the student information system change, integration with components of the portal also needed to be changed. New functionality providing standardized testing results to parents directly from the Viewpoint data warehouse was developed. Capacity for parents to manage their own password was developed. Additional functionality and improved posting from teacher grade books was implemented. Student accounts were developed and students now have access directly to grade book and other student information from the portal.

TABLE 8. PREVIOUS PLAN GOAL STATUS

Previous Plan Goal	Status
Information Services: data warehouse analytics (ViewPoint)	The Viewpoint data warehouse component now contains multiple year data sets including student demographics, attendance, discipline, achievement and growth standardized and local assessments, common assessments, class schedule, course/marks history, immunizations, and enrollment history. Many custom reports have been defined against the data. A student cumulative report was created which replaced the need to record required permanent data on a paper-based cumulative record. The data model is positioned to be ready to exchange data between districts. District staff have been trained to use the Analysis Services component of Viewpoint and will begin to create additional district-defined reports. A strategic connection for data sharing was created to link data warehouse data points with key planning areas within the Student Plans application.
Information Services: elementary electronic grade reporting system	EEGR has been widely used in data collection for intervention programming (AVMR, Reading Recovery). Use of EEGR for personal teacher grade book was not implemented because teacher support for technology applications was inadequate. Initial development of an integrated product combining components from the Elementary Electronic Progress Reporting (EEPR) collection and reporting system and EEGR has been completed. The new combined product is named ExpressBook. ExpressBook will be piloted during 2011 for collection of grade reporting and intervention data collection. Based on teacher interest and funding for improving building technology structures, implementation of this system may be expanded to wider grade book-level teacher use.
Information Services: elementary electronic progress reporting	A fully web-based version of EEPR was implemented and used successfully for the past 5 years.
Information Services: Graphical Reporting (Excensus and TIES GIS)	This project has been completed. A new Excensus reporting solution was implemented as part of our portal upgrade in summer of 2010.
Information Services: help desk software	Information Services continues to be the central point of contact for questions regarding our student information system and data management. We are still planning to implement some kind of help desk software to improve the support we provide. We have looked an Access-based program that has been used by one of our vendors and are investigating use of a CRM-based product currently being used by our Communications Technology department.
Information Services: online course requests	As part of implementing a new student information system, the high school tested options for using online course requests for the 2011-11 schedule. Online course requests will be further implemented across all sites for the next school year.
Information Services: planning and support tools	A planning and support tool was developed to support the School Board close schools and create new boundaries. An application was developed with Excensus, Inc., to provide real-time, graphical modeling for capacity planning and boundary planning. It was used with success for the changed implemented in Fall, 2010.

TABLE 8. PREVIOUS PLAN GOAL STATUS

Previous Plan Goal	Status
Information Services: student information system, master scheduling software	After a lengthy evaluation and selection process, a replacement system, EduPoint's Genesis product, was selected. More than 200 District stakeholders were involved in the process. The implementation process began in July 2010; Phases I through III were completed by the end of the 2010-2011 school year. A new secondary grade book and student/parent portal were implemented. District Census management software was developed and implemented. The second year of implementation is focused on implementing features that expand our capacity beyond what we could accomplish with SASI (our former student information system)
Information Services: student plans/continuous learning plans	A Continuous Learning Plan (CLP) including goals, strategies, and evaluation was developed and implemented for all high school alternative program students.
Information Services: universal content management (iContent)	Information Services implemented iContent for scanning permanent student records. Graduate records from the high school have been collected and scanned. The goal is to keep only 1 year of historical records (previously 5 years) housed in paper at the high schools. Historical permanent records have been converted out of microfilm format. Adult Basic Education and GED records are being scanned and Preschool screening records are scanned immediately after the screening event. Nurse paper health cards will be made into electronic records during the summer, 2011. Enrollment documents are scanned and iContent is used to improve workflow to move the enrollment quickly from schools to the central office for processing. Cost savings are realized in elimination of the multipart form previously used.
Labor Relations and Benefits: iContent	This project has been completed.
Labor Relations and Benefits: SmartBen	This project has been completed.
Labor Relations and Benefits: TIES HR/PAY	This project has been completed.
Media: enhance access for students to e-Resources and the Internet	This is a continuing priority.
Media: portable labs	Not funded
Media: staff development opportunities	Ongoing opportunities are provided.
Media: web-based circulation system	Complete. The web-based library system, Destiny, has been fully implemented
Payroll: TIES myView	This project was implemented in the Fall of 2010.
Network Services: file server consolidation	Complete. The file and network operating system has been converted to Active Directory.
Special Education: staff development enhancements	We have begun to videotape the monthly Universal Design for Learning (UDL) trainings and are exploring ways to make these available to interested staff. Some of our staff have been using video capture tools to create training documents on various Special-Education-specific computer tasks. The Special Education staff resources web page continues to grow and serves as a storage center for staff development and other resources. Many Special Education groups are using School Center, WebEx and Google Docs as a tool for meeting information and group editing requirements.

TABLE 8. PREVIOUS PLAN GOAL STATUS

Previous Plan Goal	Status
Special Education: student learning and access	Special Education has initiated innovating learning grants to encourage and support the incorporation of some new technologies (including iPads and iPods) into the classrooms. Currently, we are in our first phase of this process where we have accepted various grants across the district and have distributed the tools for use. Next, staff will report back on the success of these projects to determine if these tools are an effective way to meet unique students' needs. Our UDL team has been meeting on an ongoing basis to determine Assistive Technology needs and supports throughout the district, as well as providing monthly in-services on technology tools that can be used to support student learning. Our itinerant group (Occupational Therapists, Blind/VI, etc.) continues to meet with individual teachers and students by request from the staff or parents to discuss the possibility of using technology to meet unique student needs. Overall, progress has been made towards this goal, but there is still work that needs to be accomplished to consider this goal achieved. One challenge the Special Education department will have in the next coming school year is the fact that stimulus dollars used to invest in some of these tools and the staff to support them will not be available. This lack of funding will require us to explore other ways to provide staff support.
Special Education: student plans enhancements	We have met the following goals: • Completed 504 evaluations through Student Plans • Added special transportation requirements through early childhood • Added student evacuation plans • Enhanced reporting options • Collected data from staff on interventions being used with students

TABLE 8. PREVIOUS PLAN GOAL STATUS

Previous Plan Goal	Status
Special Education: technology tools	During the past 2 years, Special Education has allocated stimulus dollars to efforts dedicated to improving our technology tools. One of the major endeavors has been to improve our extended school year registration process. We are currently in our second year using an online ESY registration process and, while there have been challenges, we appear to be successful at providing an easy tool for staff to register their students for ESY. Another stimulus effort has been to institute a District-wide process that provides for and tracks prereferral interventions for students who are experiencing difficulties. As part of this effort, we have created a new system using Student Plans to design and document progress of interventions; further improvements are planned. A long-range goal is to develop a system that will interact with Viewpoint to track intervention effectiveness. We continue to modify the Due Process Reporting System (DPRS) based on staff input, collaboration with other districts, and communication with cmERDC, our DPRS provider. A focus for the 2011-2012 school year will be to continue to improve our MA Billing process to provide greater efficiency in submitting bills for reimbursement. Overall, Special Education has made great gains on this goal and will continue to work on streamlining job duties as new ideas and technologies become available.
STEP: maintain technology	This project has been completed.
Student Services: community and academic technology centers	This project is complete. We currently have two Academic Technology Centers in operation