WICHITA PUBLIC SCHOOLS

STRATEGIC PLAN-STRATEGY 6

DISTRICT TECHNOLOGY PLAN

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Wichita Board of Education

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WICHITA PUBLIC SCHOOLS

DISTRICT TECHNOLOGY PLAN

2007 – 2011

TABLE OF CONTENTS

I. EXECUTIVE SUMMARY 3
District Technology Vision 3
Background 3
Organization and Staffing 3
Budget and Funding 4
Instructional Technology 5
Implementation Plan 5
II. DISTRICT TECHNOLOGY PLAN 7
Technology Integration in Curriculum 7
Technology Planning 11
Access 12
Training 14
Support 16
Standards and Efficiencies 17
- Software Standards 18
- Hardware Standards 19
- Application Development 20
- Database Standards 21
- Data Architecture 22
- Network Architecture 23
- Internet and Online Services 24

III. IMPLEMENTATION PLAN 26
IV. OVERSIGHT/COMMUNITY INVOLVEMENT 29
V. FUNDING 31
VI. COMMUNICATIONS 33
VII. PORTAL TO THE FUTURE 34
VIII. APPENDIX 35
A. State Technology Report 35
B. District Training Matrix 38
C. District Technology Task Force – Membership 2007 39
D. District Technology Committees 39
E. Summary of 5 year Computer Purchasing Cycle 40

I. EXECUTIVE SUMMARY

District Technology Vision

Our vision, in the Wichita Public Schools, is to create environments in which technology is naturally integrated into the teaching and learning process and the business functions essential to the management of this large urban school district are maintained. We live in an ever-changing world in which technology is an integral part. For students to live successfully in this world, they must be able to use technological tools to communicate, explore and learn. We are responsible for educating them to use these tools proficiently, effectively and ethically.

The purpose of the Wichita Public Schools' District Technology Plan is to provide direction and guidance for helping us realize our vision. It serves as a framework for refining our standards and guiding our strategic thinking related to technology. Its philosophical underpinnings reflect our values – cost-effective delivery of technology and staff development services of the highest quality. Because it is a "living document" the District Technology Plan is subject to continuing revision and refining.

Background

Wichita Public Schools, the largest school district in the State of Kansas, has more than 49,000 students, 8,600 full and part time employees and more than 100 buildings, schools and support facilities. While the district's rollout of the third largest Asynchronous Transfer Mode (ATM) network in the United States was completed several years ago, continued enhancements ensure stability and increased bandwidth. Networks are important, but only as important as the services they support which include Student Information (eSIS), Food Service, Work Order, Transportation (Edulog), Payroll/Human Resources, Financial, Purchasing (Oracle) and district e-mail systems as well as other centralized services. The district's intent is to integrate systems to eliminate redundancy and complexity of access. SchoolNet is a new product that's use will officially begin in February of 2007. It will provide a comprehensive web based platform where student data will reside with curriculum information, enabling teachers to integrate the two in a comprehensive manner. As users' application knowledge and skills continue to develop their ability to use and manage data for enhancing student learning and improving business practices will increase as well.

Organization and Staffing

With the increased deployment and use of technology throughout the district, the need for standards, training and the hiring of qualified/experience technical professionals has become critical. The current technical salary structure makes it difficult to compete with the private sector in hiring qualified professionals. There is another discouraging by-product of this less than competitive salary structure. All too frequently, we train individuals who seek employment outside the district after being here only a short time.

The use of computers, networks and applications has increased and continues to increase throughout the district at all levels. The need for instructional and technical support has

grown along with this increased use of technological tools. What has been important previously in terms of support, has now become critical as the use of technology is crucial to the district's mission. Computer services, whether supporting instructional goals or business practices must be dependable, consistent and delivered in a timely manner.

Three groups provide primary support for technology in the district: Product Support Technicians from Management Information Systems (MIS), Instructional Technology Specialists (ITSs) from the Instructional Technology Department, and Site Technology Specialists (STSs) (classified or certificated individuals identified by the principal at each instructional site). It is vital that these groups/organizations collaborate in an appropriate manner to ensure that standards and technology direction will be consistent from all service and support providers.
While the amount and use of technology in the district has continually increased, these organizations have not experienced the rate of growth necessary for maintaining expected levels of support.

Personnel from the Joyce Focht Instructional Support Center (JFISC), the Instructional Technology Department (ITD) and Management Information Systems (MIS) all provide technology-related educational opportunities for all district employees. A variety of training models are used including classes for individual users and a train-the-trainer model whereby those trained are, in turn, responsible for training others throughout the district.

Budget and Funding

In December of 2005, the USD 259 School Board approved a district-wide five year purchasing plan (which includes a five-year obsolescence plan) to serve as a guide for technology purchasing. Current funding of technology purchases has been supported, in large part, through special dollars passed on to the district from the State of Kansas. This is referred to as "facility weighting funding." This special revenue is given to school districts to help equip newly constructed instructional spaces for a limited period of two years after occupancy. As this source of funding decreases in the next year or two, a new source needs to be established and secured in the annual district budgeting process. In order to sustain current technology levels outlined in the purchase plan, an estimated annual budget of approximately three million dollars is essential. A combination of new facilities weighting funding and the capital outlay funding has been designated to cover the technology plan. Information outlining this district-wide technology purchasing plan is in the Appendix E.

A significant portion of the computer inventory in schools which are used for instructional purposes, have been funded through means other than the district level general budget. Examples of other funding are: Facility Weighting funding, title, migrant, technology grants, Carl Perkins grants, PTO fund raising, principal discretionary budgets, etc. Computer purchases by these means are typically not consistent year to year and will continue to cause influx or reductions in the overall instructional space computer inventory across the district.

In addition to funding that provides computers, schools find more and more of their building budgets are being used to purchase consumables such as LCD projector bulbs, printer toner and miscellaneous replacement parts for technology items. The amount needed at each

school will vary depending upon the amount and types of technology devices they have acquired and how often the equipment is utilized. Beyond principals needing to adjust budgets for specialty supplies, another concern that is surfacing, is the need of strategic planning at both the building and district level to address replacement of instructional technology equipment as normal use results in inoperability.

Instructional Technology

In 2001, an Instructional Technology Department (ITD) dedicated to technology integration within the learning environment, was created. Members of the Department, known as Instructional Technology Specialists (ITSs), work collaboratively with the schools, the Department of Learning Services and Management Information Services (MIS). ITSs focus on educational processes, educational technology research/development and technology implementation to support instructional practices. Systems, processes and practices are in place to collect student performance data at all levels to guide and direct instructional practices and technology integration.

Technology Infrastructure Architecture

The network provides voice and data connectivity to the district for both staff and students. To sustain the network, regular maintenance and upgrades are necessary. The existing microwaves will require increased bandwidth for the next generation of software products, client server applications, and multimedia intensive applications. A portion of the network is being upgraded each year and the existing older units are used to build redundant links to reduce the points of failure and outages for our schools. Upgrades each year are made on the basis of component costs and available funds. This plan for incremental upgrades to the network allows for increases in growth and capacity without, in the foreseeable future, having to do a full upgrade or replacement. By upgrading incrementally we prevent the network from becoming obsolete or requiring a possibly cost-prohibitive upgrade at any one time.

Implementation Plan

The technology plan, revised in 2006-2007, contains a portion which addresses the requirements of the Kansas State Department of Education (KSDE). The school district is currently in year five of a five-year purchasing cycle. Both will be reviewed annually and updated to meet evolving needs of students, staff and the district, while maximizing available funding and resources. Several committees provide direction and assist in the identification of priorities with respect to projects and initiatives. Some of these committees (see Appendix C) meet periodically to review progress while those more directly involved in day to day operations meet every week or two.

The KSDE required technology plan for 2006-2007 will be submitted to the state, upon the approval of the Wichita Public School Board and is due March 2007. The state of Kansas requires a new technology plan to be submitted every three years. The one created for USD 259 is included as an appendix. The entire District Technology Plan for the Wichita Public

Schools includes the state required material, as well as, content believed to be vital information for effective long range strategic technology planning.

II. DISTRICT TECHNOLOGY PLAN

Technology Integration in Curriculum

The Wichita Public Schools has continued to create environments in which technology is increasingly being integrated into teaching and learning for all. In an effort to grow and expand the use of technology as a tool in the instructional setting, on-going research and development is facilitated through the ITD. The focus is on research-based strategies, products and processes that contribute to improving student achievement. Technology standards and performance indicators for students for PreK to Grade 2, Grades 3-5, Grades 6-8, and Grades 9-12 have been adopted and are identified on the district web site. These standards and performance indicators are derived from the International Society for Technology in Education **(ISTE)** National Educational Technology Standards for Students **(NETS-S)** and can also be accessed via the web. The district has also adopted ISTE's NETS for teachers and created a professional development program to help teachers reach these standards.

To promote active participation of teachers in the improvement process, **Title IID funding** (special federal money for technology integration, $152,000 in 2006-2007) is being used to support technology staff development at all levels within the district. As of the writing of this document, the federal government has not yet approved continuation of the Title IID funding for 2007-08.

In addition, the state has directly funded competitive grants through its Enhancing Education Through Technology (EETT) program (Title IID funds funneled through the state). These EETT funds have been available for Student Technology Leadership grants (grades 6-8) and **Technology Rich Classroom** grants (grades 4 and/or 5). USD 259 has one elementary school participating in a Technology Rich Classroom (TRC) grant for the 2006-2007 school year and another school approved for a continuation grant as well. These grant funds are assisting each school in offering a Student Technology Leadership course within its curriculum. To date, both Title IID funding and general budget funding have enabled the implementation of technology rich classroom concepts at five elementary schools and these schools continue to benefit from the integration of technology as promoted through TRC initiatives. At the current time, plans include applying for a TRC grant at a new school for 2007-08.

The growth of **Student Technology Leadership (STL)** has flourished well beyond the initial support funding from the state. Using funds from the ITD 06-07 general budget, 31 schools, K-12, receive budgetary support to help to begin or sustain STL groups at their sites. It is estimated that a dozen additional K-12 schools support STL activities through their own school budgets.

Wichita Public Schools initiated a partnership in the spring of 2006 with **SchoolNet** for comprehensive, Web-based Instructional Management Solutions that transform data into a powerful tool to improve teaching and learning. In the past, the Student Achievement Data Warehouse (SADW) was the district's repository of student data, serving the needs of teachers and administrators across the district. However, the functionality of the SADW was

limited and did not provide any means by which curriculum resources and student data could be "married" in order to streamline the improvement teaching and learning. SchoolNet meets that need and is integrated with our existing student information system to ensure the information and accessibility flex with student mobility. Eventually, the full implementation of SchoolNet will supplant SADW.

Another change that has taken place in 2006-07, is the **use of scanners** throughout the district to quickly facilitate the grading and inputting of results from the District Common Assessments (DCAs) into SchoolNet. In the past, Classroom Performance Systems (CPS), also known as "clickers" were used for this process. However, they were limited in their interoperability with SchoolNet for instant results. Consequently, their use for DCAs will be discontinued after the integration of SchoolNet is completed. "Clickers" will continue to be used by teachers as instructional tools and a means by which to monitor student learning on a scale, more finite than DCAs.

Assessment of students, both summative and formative, has always been part of the educational process. The requirements of the No Child Left Behind Act (NCLB) has, for several reasons, increased the need for additional assessment to guide instructional practices and monitor progress with respect to identified standards. While testing has involved varied levels of automation over the last few decades, the increase demand of computer based assessment, where students complete the entire assessment on computer, the responses are captured and results provided to the district in quick fashion, is a relatively new process. At this time, of our nearly 100 schools, only a small number facilitate the **Kansas State Assessments via computer**. While the feasibility of expanding this practice to more schools has been studied, current budgetary priorities and obligations have not enabled a plan to move forward for this specific purpose.

After a pilot program in the spring of 2006, a full implementation of the Northwest Evaluation Association / Measurement of Academic Progress (**NWEA/MAP)** testing was started for grades 3-10 in 2006-07. Students take adaptive, computer based tests at least twice a year, which provide valuable data about individual student progress on state standards in math, reading and language arts. As mentioned previously, the quantity and location of computers in the schools to facilitate computer based testing are very limited. During the NWEA/MAP testing, schools have to reorganize time and space to make it possible. This has resulted in schools selecting to purchase more "mobile" laptop computer solutions. At the current rate of purchasing, it will take several years to accommodate the laptop needs of schools in a manner which is sustainable.

Expanding use of the **Kan-Ed portal** has increased the availability in the classroom of many web-based resources. The Kan-Ed portal is a web-based initiative funded and sustained by state of Kansas that is available to all schools throughout the state via the Internet. Through a convenient single logon, the portal enables users to access many educational resources, some free and some with annual fees. While away from school, accessibility to many of the same resources is available for teachers, students, and parents through normal Internet services. A special resource USD 259 has made available for its teachers and students through the Kan-Ed portal is United Streaming (video streaming services). **unitedstreaming** is a growing library of visual resources (5,000 videos, 50,000 video clips and thousands of images) that

can be integrated into lessons with a few clicks of the mouse. The ITD supports individual school efforts to develop and post web sites for their respective teachers, students and parents. These web sites are effective communication tools as well as friendly "launch pads" for access to multiple teaching and learning resources within the individual school learning community.

Interactive Distance Learning (IDL) is a term used to describe an interactive educational video network that connects two or more locations, eliminating the barriers of concrete walls, time and distance. These shared video environments are fully interactive with everyone seeing and hearing each other live. Instead of face to face instruction like a traditional classroom, students and teachers see each other on large monitors or on a large screen with a projected image. These video classrooms are equipped with state-of-the-art teaching tools such as laptops, document cameras (ELMO), student response systems, VCR/DVD players, video compression units, and interactive whiteboards.

Distance education usually has one content delivery site with a teacher and their own students plus one or more additional receive sites where there will only be students and a Para educator. To make this instruction most beneficial to the students and teacher, each classroom usually has a lower number of students. The idea is not to see how many students can be instructed, but to deliver the best content in the most manage way.

Currently, content is being delivered between several USD 259 high schools. Plans are in place to expand course offerings by coordinating with other districts and post-secondary providers. The availability of **Internet 2** (the Kan-Ed backbone) has greatly enhanced the quality of broadcasts and increased options for students in the state of Kansas to leverage technology and expand their exposure to valuable content and enrichment activities.

Recently **Computer Studies and Technology Education** courses in middle school have been merged, resulting in the rollout of a new curriculum and deployment of new technology. The rollout began in the summer of 2005 and will continue through 2007-2008 when the new curriculum will be fully implemented.

Grade level	Course Curriculum	School Years
6th	Graphic and Presentation Technologies	2005-2006
7th & 8th	Student Technology Leadership	2005-2006
7th	Robotic and Communication Technologies	2006-2007
7th & 8th	Video Production	2007-2008
8th	Applied Technology	2007-2008

As with many technology integration projects, the Middle School Technology program will require continuing funds to maintain and upgrade the labs and other equipment as well as keep the curriculum current.

Courses offered in high schools include: Keyboarding (typing), Computer Presentations, Computer Systems, Computers and Technology, Internet, Networking and Programming. Many

of the students in these courses also participate in the STL program and become a valuable resource at their schools.

Goal

District administration and staff will continue to plan, implement and integrate technology throughout curriculum at all grade levels to increase student achievement.

Responsibility: Instructional Technology Department, Department of Learning Services, Management Information Services, Grants/Development Services, Quality Improvement Services, Chief Academic Officer

Objectives:

- Complete implementation of the Middle School Technology Education curriculum.
- Expand and support the Student Technology Leadership (STL) organizations in schools to enable the application of technology skills and to support technology integration empowering students as partners.
- Maintain the Instructional Technology Department to provide research and development, along with staff development necessary to integrate technology into the curriculum.
- Continue identifying and integrating technology skills for students throughout the curriculum.
- Seek opportunities to maximize existing Interactive Distance Learning labs and expand the number of labs and similar equipment throughout the district as needed.
- Continue to fund and promote the integration of technology based methodologies in all levels of education, pre-K thru 12th grade.
- Be an active participating school district in the expansion and use of the Kan-Ed Portal.
- Continue to seek state and federal grants for technology integration as they become available.
- Expand and model the use of Classroom Performance Systems (CPS) to enhance curriculum delivery and rapid data creation.
- Continue to monitor the feasibility of budgeting, purchasing, deploying and support of a district wide computer based assessment processes.
- Facilitate training to ensure that all teachers and administrators access SchoolNet and utilize student data to impact individualized learning processes.
- Provide specialized training for the implementation of new services and/or software adoptions.
- Monitor and assess the procurement process to ensure that textbook adoptions include the review, evaluation, and selection of technology rich materials, devices, and media.

Technology Planning

As legislative actions at the federal, state and local levels dictate, BOE technology related policies are created or modified to maintain compliance and provide for the enforcement of any mandated requirements. In addition, BOE policies may also reflect priorities or practices that the district itself values or believes to be of necessity to function in an efficient and responsible manner. The policies that are created at the district level are often reflected at the school level in the Campus Improvement Plans, crafted by staff and stake holders at that level.

Campus Improvement Plans (CIP) describe a school's plan for improving student achievement. In previous years each school created a separate technology plan. Currently, plans for technology integration can be embedded into various sections of the CIP, in particular the section dedicated to interventions. At the school level, the instructional leaders often determine the role and prevalence of technology resources. Often times, site councils play an involved role in this type of decision making as well.

Schools often select technology integration as a significant tool to increase student achievement and identify this intent in their CIP. The Instructional Technology Department and the Department of Learning Services collaborate with these schools and build upon their enthusiasm to develop research projects that are later implemented throughout the district.

The Student Achievement Leadership Team (SALT) is a small oversight group of key individuals, representing Special Education, Quality Improvement Services, Learning Services, Instructional Technology and Management Information Services. Its purpose is monitoring and evaluating projects and initiatives having district-wide implications. District common assessments, eSIS, NWEA/MAP and SchoolNet are several projects currently being monitored. On a quarterly basis, SALT provides feedback to those responsible for district level decision-making. SALT's involvement is a critical part of the monitoring and reviewing of the District Technology Plan that occurs on a regular basis. Along with the District Technology Task Force, they work to ensure that implementation proceeds as planned and that future plans will meet district needs.

Goal

District staff will create, maintain and administer technology policies and practices which contribute to increased student achievement.

Responsibility: Instructional Technology Department, Department of Learning Services, Management Information Services, Chief Academic Officer

Objectives:

- Create, review, maintain and communicate appropriate instructional technology related policies.
- Maintain, grow and document the integration of technology into each CIP.
- Encourage and support research, development, implementation, and evaluation of technology integration within the instructional setting.
- Review the District Technology Plan annually, involving key stakeholders.

Access

The current ratio of students to computer is slightly above 3:1. This ratio is based upon the computers funded through the District's purchasing cycle, in combination with additional purchases from various sources at each school. The Board of Education has established a goal to achieve a student to computer ratio of 2:1 by 2010-11. Teachers have network access in every instructional space. Infrastructure has grown and remote access for employees and students has started to expand as well. Teachers can access email and the student information system from remote locations. Teachers, parents and students are able to access a wide variety of instructional programs and tools via the Kan-Ed Portal and additional links that individual schools have created on their own web pages.

SchoolNet is a comprehensive student data and curriculum management tool. It will enable teachers to monitor student achievement and testing data without interference resulting from student mobility. The technology tool will also provide teachers with a means by which to organize and correlate curriculum resources, based upon student needs as indicated by assessment data. SchoolNet will bring many of the elements key to teaching and learning together in one location. A significant improvement that SchoolNet brings to bear for teachers is the accessibility will extend outside the district network and be available 24/7.

In 2004-05, web-based staff development scheduling software, **MyLearningPlan.com** was implemented. The software permits post-course completion of a knowledge validation form by participants (over 50,000 forms have been completed since its inception) which collect information on a course's content value and the implementation plans of individual staff members. While this information is generated for all types of staff development, the Department of Instructional Technology uses it to monitor and adjust course offerings related to technology integration.

For the past few years, technology-specific surveys have been distributed to district staff, via MyLearningPlan.com. Of those who responded, 96% of them indicated that they have a computer at home and of those, 60% utilize broadband services. This information has been a strong rationale behind the development of online "**Standards for Teachers through Educational Projects**" (STEPs) classes by the Instructional Technology Department.

Web based surveys have also been facilitated through the Instruction Technology web site and have provided valuable feedback to the department and individual instructional leaders over the past several years. Annually, all Site Technology Specialists (STSs) are asked to complete an end-of-the year technology survey online. Survey results provide the Instructional Technology Department with feedback about the district's technology vision, communication practices, staff development and district-wide technology procurement practices. Data from the survey are also used to inform strategic planning and to guide training and other initiatives.

In the fall and winter of 2006, attempts were made to engage a broad spectrum of individuals via digital web 2.0 tools. Several podcasts about the district's technology plan were produced and posted to the World Wide Web on iTunes. The podcasts were approximately 8-10 minutes in length and focused upon a particular content area of the tech plan. A blog site was

also established where interested individuals could provide feedback and input on the district's plan. Unfortunately, the response was limited, particularly with respect to the blog site. The metrics provided from the podcasting publisher showed several dozen individuals listened to each of the podcasts, however none of the listeners provided input via the blog. The effort proved to be an experiment that showed the technology is in place to facilitate such collaboration, but the two-way engagement of our particular audience at this time is minimal. Ongoing efforts exist to continually solicit feedback and input from site council members, staff, students, parents and community members to maintain the technology plan/review process.

Microsoft Share Point portal has been available for district employees on an experimental basis for a couple of years. During the 2006-07 school year, the systematic use of the software tool is being deployed across all levels of operation throughout the district. As more and more of the employees adjust to thinking and accomplishing their responsibilities in a manner that necessitates the use of digital "work spaces" and takes advantage of virtual collaboration, the use of the Share Point portal will grow. Eventually, with the conversion to Office 2007, the use of the portal will replace the current practice of using "public folders" in Outlook as the mechanism to share documents and information throughout the district.

In the fall of 2005, a recommendation was proposed to move forward with a web-based grade, progress and coursework reporting application. The student information system used by the district provides grade and progress reporting at only the secondary level and its functionality is limited. The growing expectation and demand by parents and teachers is for a tool that will provide 24/7 access to K-12 student grades, progress and coursework information. The anticipated piloting of a product during the 2005-2006 school year was discontinued because budget and human resources were needed to implement SchoolNet and NWEA/MAP to address the large data-assessment-curriculum needs throughout the district. It is hoped that a solution to meet the school-to-home reporting can be identified and implemented more sooner than later.

Goal

Students, parents and employees will have access to information and technology resources, anytime and anywhere, to assist in the effort to increase student achievement.

Responsibility: Instructional Technology Department, Management Information Services, Building Level Administrators, Chief Academic Officer

Objectives:

- Provide all students access to computer technology with multimedia capabilities and Internet access at a computer to student ratio of 2:1 by 2010-11.
- Maintain equitable access to all approved services over the Wide Area Network (WAN) with approved computers for both staff and students while ensuring security for the network and services.

- Maintain external access for district employees to all services over the WAN and remote access with approved computers, during normal business hours and off hours (from home, while traveling, etc.) while maintaining security for the network and services.
- Provide district students and parents external access to approved services (email, grades, attendance, progress reports, software, etc) via the Internet, while maintaining security for the network and services.
- Provide means for site-based staff to extract information from established databases using SchoolNet.
- Implement the use of the Share Point portal throughout all levels of operation in the district.
- Continue to look for resources to implement a web-based grade reporting application that will meet the needs of K-12 parents, students and teachers.

Training

The Wichita Public Schools offer a wide variety of technology-oriented training programs. We recognize that high quality training is critical to the effective use of software and hardware. The primary purpose of curriculum-related staff development is to help district educators learn to integrate technology into the learning process more effectively so that student achievement will increase. Professional development in the district whether technology-related or curriculum-focused or both, is targeted to the needs of various groups of employees.

The district is committed to providing technology training to all employees, not only educators. A district technology professional development matrix (see appendix) is used to identify the training needs and requirements of different employee end-user groups. Most software and technology training is provided by staff at MIS and ITD. Their efforts are occasionally augmented by contract trainers, whose expertise is provided in conjunction with newly acquired software and hardware systems. A train-the-trainer model is often used to maximize efficiency and help insure that all employees receive needed training. Through this model, a diverse cadre of Site Technology Specialists, (STSs) are developed and assigned throughout the entire district. Most technology integration training is provided "just in time" to maximize effectiveness and minimize the need for retraining.

Learning Services has regularly scheduled training sessions each Friday (Learn Lab), involving curriculum specialists, instructional coaches, campus support teachers, data leaders, instructional facilitators, instructional technology staff and the leadership members of various departments. There has been a growing effort to integrate technology skills and applications into the weekly training events. An emphasis upon disseminating the skills and applications to instructional staff at all schools has been identified as an expectation.

Employees' day-to-day questions are handled though the district HELP desk which may be accessed via phone or e-mail. Additionally, trainers use Blackboard, a web-based course delivery tool and other online support tools to provide follow-up support.

MyLearningPlan.com, a web-based management program, handles registration and enrollment in professional development. Each employee uses MyLearningPlan to coordinate and monitor his/her personal professional development plan. The Human Resource Department monitors this program and is able to track professional development points and other criteria related to licensure of employees.

Professional development with a curricular focus is most often provided by Instructional Technology Specialists, campus support staff, and curriculum personnel.
Professional development of this type is available during the school day in the form of embedded staff development, during district-wide professional development sessions, outside the school day via on-line and face-to-face courses and during the summer months when school is not is session. For teachers new to the district, a special training program called "No Teacher Left Behind" has been created to provide initial orientation to and familiarization with all applicable technology related processes. At the beginning of the 2006-07 school year, this training became part of the 3-day required training for all new staff. Follow-up support services are then provided by teaching mentors and STS personnel.

Technical support staff members increase their expertise and acquire additional certification training through workshops and appropriate specialized training offered throughout the country. Instructional Technology Specialists have frequent opportunities to increase their knowledge though training offered by vendors, MIS staff and others.

Rigorous coursework to help teachers meet the International Society for Technology in Education's (ISTE) National Educational Technology Standards (NETS) for Teachers is offered through a year round program called "Standards for Teachers through Educational Projects" (STEPs). Originally provided only in a face-to-face training format, the program has been expanded to a distance learning on-line format. Coursework is projects-based in design, thus facilitating assessment of participants' knowledge and performance. Participants have been able to earn incentives, in the form of technology tools used in their classrooms, by completing coursework within certain timelines and within specified quality standards. Plans include the continuation of providing incentives, contingent upon annual funding.

In an effort to measure the effectiveness of technology implementation in the classroom, USD259 has started the use of an online survey tool known as "LoTi". It is a validated tool that captures the Levels of Technology Implementation (LoTi) and was published by the National Business Education Association (NBEA). It is being provided to schools nationwide and promoted by the Kansas State Department of Education. Several of our schools involved with technology rich classroom grants have been using the tool for a couple of years. During the second semester of 2007, a district-wide initiative will take place to introduce the tool to teachers and administrators. It is believed that LoTi will provide a valuable means by which teachers can subjectively judge their ability to implement technology into their teaching practices and provide district and building level documentation to guide training efforts across the entire district.

Goal

District staff will design, deliver and support effective technology professional development to assist in the effort to increase student achievement.

Responsibility: Instructional Technology Department, Management Information Services, Department of Learning Services, Chief Academic Officer

Objectives:

- Continue to fund and promote technology integration in all K-12 instructional programs.
- Ensure that training related to integration of technology in the curriculum is based upon established standards.
- Continue to provide professional development for teachers through the STEPs program.
- Maintain and expand training opportunities for all employees through a variety of venues including distance learning and on-site classes.
- Increase collaborative efforts between Learning Services and Instructional Technology.
- Expand the use of technology in all aspects of staff development.
- Development and implement training for classified staff that is technology-related and job-specific.
- Maintain a high level of awareness that data protection is the responsibility of all technology users in the district.
- Provide ongoing training opportunities for technical support staff through conferences, specialized course offerings, and formal training specific to their fields of expertise. Training will include, but not be limited to, all MIS staff, ITSs, STSs and campus support personnel.
- Provide ongoing training for staff to develop an understanding of the benefits of network viability and protecting network integrity.
- Develop a training matrix to identify technology training requirements for all employees.
- Maintain and refine a systematic process to verify and account for individual staff development accomplishments (MyLearningPlan).
- Implement the use of LoTi to assessment technology integration and guide ongoing technology training efforts.

Support

The Instructional Technology Department (ITD) was created in 2001 to help develop and implement a district wide plan for integrating technology into the teaching and learning process. The Instructional Technology Department, Management Information Services (MIS), and the School Service Center continue to collaborate to ensure high quality technology-related services to all campuses. Within each building, ITD and MIS staff are identified and teamed to ensure appropriate communications and services. The focus of all

three groups is continuous improvement of services and support. The ITD and MIS seek annual feedback from customers through surveys.

Goal

District administration and staff will design and deploy effective support systems for technology integration to assist in the effort to increase student achievement.

Responsibility: Instructional Technology Department, Chief Academic Officer, Management Information Services, Building Equipment & Grounds (SSC), Design & Construction (SSC).

Objectives:

- Provide high quality services through internal and external partnerships.
- Seek continuous improvement feedback to maintain customer satisfaction.
- Establish and maintain collaborative support teams that will address the needs of the schools in an effective, consistent and timely manner.
- Increase site support by having a full-time Site Technology Specialist in every school.
- Continue to provide in-service training for Site Technology Specialists.
- Increase the number of schools that support technology implementation through the implementation of a Student Technology Leadership (STL) organization.

Standards and Efficiencies

Standardization with respect to software, hardware and network infrastructure is essential in order to maintain equipment, provide training and perform all necessary functions in an efficient and effective manner. The complexities of a large urban district dictate a centralized approach to establishing procedures and practices related to software, hardware and network infrastructure. A standing committee for hardware and software, with membership representing a wide range of constituents, has established the standards related to technology use and purchases.

Inventory of computer equipment on a district level is a daunting task. Currently this is being facilitated manually through an Access database created internally. Inventory information for new equipment is uploaded into the database, using a CD provided from the computer vendor. STS's are responsible for manually deleting records from the database when equipment is discarded. While this process provides reasonably useful inventory data, it is labor intensive and inefficient. The Altiris software, currently being implemented by MIS, will be used to manage computer and software inventory in the near future.

An urban school district typically experiences high rates of mobility within certain segments of its student population. Minimizing the impact of mobility on student achievement is a high priority; hence a decision was made to standardize software and hardware within classrooms.

Another advantage to the standardization of software and hardware is the leveraged purchasing power it provides the district through bulk purchases. This practice has resulted in reduced cost agreements with various vendors serving the district.

An obsolescence plan is in place whereby all computers will be replaced when they're five years old. The obsolescence plan, along with minimum hardware specifications will reduce the number of different processors and platforms that technical support personnel must support. Software and hardware standardization results in a reduction of the number of different training programs needed and facilitates the use of just-in-time and train-the-trainer instructional models. Overall these practices reduce the time and effort required to integrate technology into the learning process and enhance district business operations as well.

Standards are essential to successful technology planning and implementation. The Hardware Standards Committee (HSC) meets regularly to ensure that standards are current and appropriate and to address requests for exceptions to the approved standards and to discuss related issues. While exceptions to standards can be approved by the corresponding review group, it may not be possible for MIS or ITD to provide training and/or support.

Software Standards

Software standards, reflected in applied images to district computers, have been created and are monitored by MIS. A software adoption process has been established to provide centralized guidance as instructional software products are evaluated, piloted, selected and procured for instructional use. A set of documents and procedures called the 'Software Adoption Guidelines and Process' (SAGP) is used to provide this guidance. SAGP includes the required forms and defines the necessary steps for acquiring software and helps to ensure that software acquired will meet the varying needs of the district. In evaluating software, different factors are considered depending upon its intended use. Some factors such as hardware and network requirements and ease of use and administration apply to all software considered for purchase. Other factors are unique to the purpose of the software. For example, curriculum software must align with curriculum standards and address concerns related to student mobility. Whenever possible, the district preference is for web-based applications over client-server applications. The committee's goal is to find the best products at the lowest price and to ensure standardization across the primary and secondary levels and whenever possible and appropriate, across the entire school district.

To reduce costs and promote uniformity the district seeks district or site software licenses whenever available. Bulk purchases for approved software are made three times a year and the ordering process is administered by the ITD. The Microsoft Windows operating system is the district standard for all personal computers and the Apple Computer operating system is the standard for all Apple computers. The district standard for email, word processing, spreadsheet, publishing, personal database, and presentation software is the Microsoft Office Suite.

Goal

District administration and staff will ensure the standardization of all software in the district to assist in the effort to increase student achievement.

Responsibility: Instructional Technology Department, Management Information Services, Department of Learning Services, Chief Academic Officer, Purchasing.

Objectives:

- Establish budget line items to provide on-going funding for software application purchases.
- Maintain and improve the Software Adoption Guidelines and Process.
- Continue standardization of software across school levels and whenever possible the entire school district.
- Maintain awareness of national and international technology issues to remain on the leading edge of technology integration.
- Purchase curriculum software curriculum that is aligned to district and state standards.
- Purchase web-based applications that can be centrally managed and administered whenever possible.
- Purchase district licenses to lower costs and ensure standards.
- Continue and expand the bulk order software purchases.
- Continue to use pilot projects to evaluate the ability of new and emerging software to meet our needs.
- Sustain a process to select, procure and support instructional software.
- Support a dual platform standard, allowing both Windows/PC and Macintosh computers to be utilized in the instructional environment.

Hardware Standards

The Hardware Standards Committee has oversight of all aspects of hardware technology standards for both instructional and administrative use.
The committee's scope includes recommendations for new computers (desktops, laptops, servers), monitors, network adapters, document imaging (printers, copiers), hand held computers, digital projectors, student response systems and interactive whiteboards. The district continues to allow dual platforms, both PC/Microsoft and Apple/Macintosh. While there is a higher TCO (total Cost of Ownership) for the support two platforms, the needs of several curriculum areas are better met by one platform or the other. The district needs to continue to evaluate the efficacy of dual platform support. Refurbished or reconditioned hardware is not permitted.

The committee also establishes the minimum hardware specifications for donated computer equipment. The Wichita Public School system supports the established goal to maintain all computer workstations on a 5-year obsolescence/replenishment cycle (appendix). The district encourages schools to purchase approved hardware technology through the Bulk Technology Hardware Order Process three times per year, thus leveraging buying power and getting lower cost and many value added services. The Bulk Technology Hardware Order Process is administered by the Instructional Technology Department.

Goal

District administration and staff will ensure the standardization of all hardware in the district to assist in the effort to increase student achievement.

Responsibility: Instructional Technology Department, Chief Academic Officer, Management Information Services, Purchasing, Budgeting, BOE.

Objectives:

- Maintain budget line items to provide on-going funding for technology hardware purchases to support the 5-year obsolescence/replenishment cycle.
- Maintain and improve the Technology Hardware Standards.
- Maintain awareness of national and international technology issues to remain on the leading edge of technology integration.
- Enforce technology hardware standardization across the entire school district to ensure a lower TCO (Total Cost of Ownership).
- Maintain and foster strong vendor relationships to leverage value added services.
- Ensure that the district-wide 5-year obsolescence/replenishment cycle continues.
- Migrate from the internally developed, manually maintained, Access database of district computer inventory to the recently acquired, automated Altiris system.
- Support a dual platform standard, allowing both Windows/PC and Macintosh computers to be utilized in the instructional environment.
- Continue and improve the Bulk Technology Hardware Order process to collectively purchase technology hardware.
- Continue to utilize pilot projects to determine the value of new and emerging hardware products.

Application Development

Wichita Public Schools has various specialized business applications to meet district needs for financial services, human resources, student information, facilities maintenance, food services and others. It is vital that all business applications effectively interact to provide efficient services district wide. MIS is working to build interfaces which allow access to information from the primary source from other applications. These interfaces provide data integrity and eliminate dual entry. They also permit real time validation or automated scheduled updates of system validation files. The development of partnerships between district entities and vendors will help ensure the individual application upgrades will not impact the integrated links.

MIS/ITD in collaboration with a new district leadership position of Instructional and Assessment Management, facilitate district steering committees of users to prioritize project work and continue to evaluate the goals and objectives of the district. As business needs change, applications are enhanced to incorporate desired features or a determination to replace an existing application and purchase another product may be made. MIS/ITD represent the district needs at vendor conferences to influence the direction of application development.

MIS technical staff has established interoperability between the various applications, customized functions and reports. Each of these applications requires continual monitoring for optimum performance and periodic upgrades for functionality enhancements. As each application is upgraded for the specific need, continual evaluation

of the impact of these upgrades is done to anticipate the impact on the integrated links. The successful implementation of software changes is accomplished thru analysis, development, testing (quality assurance) and training. All products will be maintained by applying upgrades on a regular and timely basis.

Goal

District administration and staff will create, develop, procure and implement appropriate applications to assist in the effort to increase student achievement.

Responsibility: Instructional Technology Department, Chief Academic Officer, Management Information Services, Purchasing, Instructional and Assessment Management.

Objectives:

- Create and maintain application environments that are platform independent and that will allow for the building of interfaces between products, reports and data security.
- Establish purchasing practices, considering packages whenever possible, that meet application specifications, hardware, software and database standards.
- Interface with 3rd party applications that proficiently provide functions to meet needs outside of the core applications or development of customized functions to the core business application.
- Create query tools for data analysis that provide real time access to information stored in multiple applications.

Database Standards

Oracle is the district-adopted database platform standard for district-wide, heavily-used application data storage. The Oracle database offers robust backup and recovery options, including the ability to maintain hot standby copies of databases at a remote site so that a disaster at the primary MIS site will not cause data loss and will have minimal impact on application availability. Oracle offers the ability to connect hundreds or thousands of users to a database concurrently, therefore it is the platform required by some district applications. Oracle runs best and most reliably on the Sun Solaris server platform. Heavily-used applications use Oracle databases running on Sun servers. For some lighter-duty applications Oracle can be run on Microsoft Windows servers. For applications that do not support connections to Oracle databases the district uses the Microsoft SQL Server database engine when possible. While not as robust as Oracle, it does offer the ability to connect many users concurrently, is efficient and inexpensive to manage, and is reliable when run on a stable server. Applications that can only use data storage engines other than Oracle or MS SQL Server are only implemented if the benefits of using the application outweigh the negative impact of bringing a non-standard database in-house.

Goal

District administration and staff will create, develop, procure and implement appropriate database application and design to assist in the effort to increase student achievement.

Responsibility: Management Information Services.

Objectives:

- Maintain in-house expertise in implementation and management of a standard database engine(s).
- Reduce the resources required to build interfaces and customized queries.
- Provide exceptionally high uptime for district applications.
- Provide exceptionally high data throughput by using expert tuning strategies.
- Provide outstanding data security and safety by taking advantage of distributed database technologies so that a disaster at one site does not cause data loss.
- Minimize licensing issues and costs by taking advantage of enterprise-wide licensing opportunities.

Data Architecture

The district's data repositories represent a tangible asset. A specific standard for data architectures supports consistency and concurrency of the district's data. Ideally, each data element is stored on one, and only one, system. Given that business requirements often dictate that data from one system be available to other systems, the data architecture standard requires that this data visibility be facilitated through the use of software database link technology rather than duplicate storage.

Widespread use of Open Database Connectivity (ODBC) tools to connect to Oracle and/or SQL Server databases by end users is discouraged for security reasons. The district applications implement security and business rules and therefore it is not advisable to work around them. Additionally, it is technologically possible for users to change or damage data inadvertently while connected directly to databases with such tools. ODBC may be used by MIS personnel to facilitate linking SQL Server databases to Oracle databases so that a coherent view of disparate data is made available to applications that need data from those systems concurrently.

Data that may have enterprise-wide use should not be stored on servers at multiple sites. Enterprise-wide data should be stored centrally so that all users with the need to view the data may do so. Moving and merging data from site servers to central servers is discouraged because it is impossible to maintain consistency and concurrency.

Data architectures are managed and administered by database administrators at MIS. The database administrators are responsible for creating and maintaining the required linkages so that users can view data from disparate sources without having to manage linking sources themselves.

The District has created a Student Achievement Data Warehouse (SADW) as a repository and reporting system for a variety of assessment data. The architecture of the SADW was created some time ago and there is some duplicate data storage. As resources permit, the architecture is being relocated to rely more on database links (i.e. to the eSIS Student Information System) and less on duplicated storage. This adjustment will enhance concurrency because database links report data in real time whereas duplicated storage

relies on “refresh” cycles which can result in inconsistent data. SADW will go away once SchoolNet is fully operational as it will be our data warehouse in the future (target 07-08).

Goal

District administration and staff will create and implement appropriate data architecture design to assist in the effort to increase student achievement.

Responsibility: Management Information Services.

Objectives:

- Maintain consistency and concurrency of district data assets so that business requirements can be fulfilled.
- Maximize the safety, availability, and usefulness of each data repository through competent management and administration.
- Maintain strict data visibility security through the enforcement of business and security rules as implemented by the various district applications as well as by district security policies.
- Allow end users to see a consistent, up-to-date, seamless view of data, regardless of the number of different data systems involved, through the use of links instead of duplicate storage.
- Minimize the need for additional storage hardware.

Network Architecture

The district maintains a private microwave system with more than 100 hops providing the communications transport for the entire district. The microwave technology has enabled the district to avoid lease networks for the more cost effective and expandable microwave network. Each hop supplies a minimum of 45 MBPS services to a school. At present, the market value of T1 service for a school with 45 MBPS equivalent would involve 30 T1’s and would cost $13,500/month.

The Asynchronous Transfer Mode (ATM) network forms the basis of voice, video, and data movement throughout the district. It allows for a cost-effective method of movement of all services. Additional microwave units are being added to increase the number of paths thus providing redundant links and increased bandwidth for our schools. With the use of ATM switches we have increased the network ability to dynamically reroute video, data, and voice via different paths, where they exist.

The phone system supports nearly 10,000 phones/voice lines. In addition to the phone system there is a voice mail system, designed to allow for a voice mailbox for each phone in the district, with multiple voice mailboxes and call routing for school offices. We have in excess of 5,000 voice mail boxes in existence. The district has also placed a telephone in each classroom. We have recently linked our voice mail systems to outlook allowing individuals to listen to their voice message and to route it much easier.

Quality and reliable services can only be maintained through the use of standards. A single architecture has been defined for all facilities addressing classrooms, node rooms, and office space. These standards are incorporated in the construction and design standards for LAN/WAN wiring, as well as electrical and electronic standards used for new facilities and remodeling projects in the district.

The District has standardized on Microsoft for its operating system (OS) and office products that are licensed by the district through a School Agreement. The annual review and renewal of this agreement has allowed the district to upgrade the OS on the approximately 21,000 computers located in schools and administrative facilities on a regular basis.

Goal

District administration and staff will create, develop, procure and implement appropriate network architecture to assist in the effort to increase student achievement.

Responsibility: Management Information Services.

Objectives:

- Continue to enhance the bandwidth and reliability of the network annually.
- Upgrade district voice mail to unified messaging, integrating voice mail, email and text messaging.
- Continue to identify standards that will ensure stability of the network.
- Incorporate new technology as it becomes available while maintaining alignment with district objectives and remaining cost effective.
- Develop an annual plan to maintain and enhance the technology infrastructure for the district.

Internet and Online Services

Accessibility to information and data has made Internet and online services crucial to USD 259. These venues have become an everyday method of communication for students as well as staff members. Internet and online services are used within the classrooms, by eSchool students and as business tools.

USD 259 has established district policies and standards which are meant to create a safe and efficient means of communication for students, staff, parent and the community. The district filters all Internet use in accordance with and in some cases exceeding CIPA regulations.

Security software is in place to insure the integrity of data, educational direction and protection of appropriate and lawful use. Software utilized for filtering and security of district Internet and online services demands constant improvement.

Goal

District administration and staff will create, develop, procure and implement appropriate Internet and online services to assist in the effort to increase student achievement.

Responsibility: Management Information Services, Instructional Technology Department, Marketing and Communications, Department of Learning Services, Chief Academic Officer.

Objectives:

- Provide site guidance and staff development as to the use of electronic gateways.
- Continue the growth of usd259.com, usd259.org and the district intranet domain of usd259.net with necessary security features.
- Develop a district portal that will integrate all district internal services currently available through the Intranet, with the ultimate goal being a single sign on, providing access from anywhere at anytime.
- Support the evolution of Internet and online policies that grow with the services provided by these methods of communication, online curriculum, employee services, student and employee data.
- Promote continued cooperation from multiple departments to expand support as Internet and online services expand in use for students, parents and staff.
- Administer the district policy relating to the district Internet sites and online services that guide a two-way communication system, useful to staff, students, parents, community members, and other visitors (BOE Policy P1230).

III. IMPLEMENTATION PLAN

Many projects are being implemented currently or are in development throughout the district. Examples of them follow.

- **SchoolNet,** is a comprehensive student data and curriculum management tool. It will enable teachers to monitor student achievement and testing data without interference resulting from student mobility. The technology tool will also provide teachers with a means by which to organize and correlate curriculum resources, based upon student needs as indicated by assessment data. SchoolNet will bring many of the elements key to teaching and learning together in one location. A significant improvement that SchoolNet brings to bear for teachers is the accessibility will extend outside the district network and be available 24/7.

- **District Common Assessments** are in the process of transitioning from being administered using classroom performance systems (clickers) to a process that uses plain paper scanners. The newly implemented SchoolNet software enables common assessments to be generated and distributed electronically from a central office to school sites. Individuals at the schools are able to print bubble sheets for students with names and ID directly on test forms. After the tests are administered, the bubble sheets are scanned, using machines in the school buildings, producing immediate information for the teachers by uploading the results directly into SchoolNet.

- The student information system used district wide is **eSIS.** Its grade package is used by high schools and some middle schools it includes access by parents to the grades and other classroom related information for our high schools student(s). Delayed enhancements from the vendor have caused implementation of a grade package at the elementary levels to be on hold. Thus, for the foreseeable future continuing the high school and possibly the middle school level implementation of the eSIS grade package will be the emphasis. Additional eSIS features in development include: IEP creation for special education students, linking capabilities to Edulog the software used for student transportation management, and linking capabilities to the PeopleSoft software used by Human Resources. The Oracle backbone for eSIS and the application it self will require upgrade from time to time in order to maintain support and increased functionality of the application for your staff.

- **The Student Achievement Data Warehouse (SADW)** continues to serve a purpose as a data repository for some elements of formative and summative assessment data. The recent implementation of SchoolNet has replaced SADW as the tool used by teachers, building administrators and district leaders to monitor student data and make timely decisions about instruction.

- **The Campus Improvement Plan (CIP),** has been online for since the spring of 2005. Significant changes were made to the tool for use in 2006-07. Efforts are continuing to make the CIP a valuable, yet easy to use tool for all schools.

- **The Kan-Ed portal,** a project of the state, is a custom web portal of applications and resources available to teachers statewide. It requires some district level support. District personnel are responsible for training our teachers to access and use the resources available on the Kan-Ed portal and coordinating with Learning Station (the vendor contracted with by the state to manage the web-based desktop) to add district- and building-specific software links to the desktop.

- **Interactive Distance Learning (IDL),** Currently, content is being delivered between several USD 259 high schools via high speed connectivity, utilizing interactive video conferencing devices. Plans are in place to expand course offerings by coordinating with other districts and post-secondary providers. The availability of Internet 2 (the Kan-Ed backbone) has greatly enhanced the quality of broadcasts and increased options for students in the state of Kansas to leverage technology and expand their exposure to valuable content and enrichment activities.

- **unitedstreaming**, a video streaming service, is a recent addition to the resources the district has acquired. An on-line collection of 5,000 videos, 50,000 video clips and thousands of images are available for students and teachers to use. With a few clicks of a mouse, these videos and images can be integrated into lessons or assignments.

- **NWEA/MAP,** After a pilot program in the spring of 2006, a full implementation of NWEA/MAP testing was started for grades 3-10 in 2006-07. Students take adaptive, computer based tests at least twice a year, which provide valuable data about individual student progress on state standards in math, reading and language arts. NWEA has a web site that guides teachers' use of the testing results to redirect instructional efforts for specific student needs. The NWEA/MAP assessment results are also uploaded to the new SchoolNet platform, helping teachers monitor multiple data points related to student achievement.

- **Curriculum oriented applications** undergo updates and require ongoing equipment enhancements as well as staff development training. Some current examples of these applications include: Read 180, DIBELS, Kidspiration, Inspiration, Dream Weaver, Photoshop Elements, Typing Master Intra, Movie Maker, Accelerated Reader, DIAL 3, Reading Counts, STAR, Jostens, Blackboard, and Exam View.

- **Technology devices** are being integrated into the teaching/learning process and require specialized training for teachers and other users. Current examples of such devices include: SMART Board and InterWrite SchoolBoard interactive whiteboards, SMART Technology's AirLiner wireless slates, handheld computers, Classroom Performance Systems (clickers), digital and video cameras,

More specific to the business operations of the district are several large, district wide implementations.

- **Wireless services and equipment** have been ~~are being~~ installed throughout the district.

- **PeopleSoft,** the district's human resource management software application, is vital to the functions of Human Resources and Payroll. Its implementation in the district has been gradual and ongoing. As it has been enhanced, it's been linked with other district-based applications thus enabling the district to streamline various operations.

- **Oracle eFinancial** is the budgeting and purchasing application used by the school district. Efforts are ongoing to complete full implementation throughout all levels of the organization. This has been significant initiative designed to make the procurement process paperless.

- **Content Management System (CMS)** is the ~~new~~ web development tool ~~being~~ implemented by Marketing and Communications to create a rich, timely and easy-to-update presence for the Wichita Public Schools on the Internet.

- **Share Point Services** is an intranet content and collaboration tool, allowing staff to share files and resources within the secure district environment. The district is transitioning from the use of Outlook folders to functionality with Share Point. As more and more employees recognize the advantage of using digital work spaces and virtual collaboration, the use of the portal will grow.

IV. OVERSIGHT/COMMUNITY INVOLVEMENT

The Wichita Public Schools exist to serve the families of Wichita, Kansas by providing quality educational services to their children. Creating a mechanism whereby community oversight and involvement can happen is an important tool for insuring continuous improvement. With respect to technology integration's role in improving student achievement, the district relies on the perspective of both internal and external stakeholders. To ensure that the technology plan ~~would~~ reflects changing needs and desires of students and families and provides a mechanism for input and discussion among interested parties, a District Technology Task Force (DTTF) will be reorganized. The desire is that the DTTF will help everyone see the district not as it is…but as it can be. The benefit of such a vision will be technology that is effectively integrated into the teaching and learning process and student achievement that continues to increase.

Another source of input regarding technology integration is Super SAC (Superintendent's Advisory Council). This group is comprised of high school students from around the district who meet monthly with the district superintendent. Technology is one of many topics, about which, students are eager to share their opinion and perspective.

Goal

District administration and staff will seek involvement and input from both external and internal stakeholders with respect the district's plan for the integration of technology throughout the curriculum to assist in the in the effort to increase student achievement.

Responsibility: Management Information Services, Instructional Technology Department, Marketing and Communications, Department of Learning Services, Chief Academic Officer.

Objectives:

- Continue to seek the advice of the District Technology Task Force through periodic meetings.
- Maintain community representation on the DTTF, making sure that membership includes appropriate community, business and higher education representation.
- Reorganize the DTTF membership to include parents from the elementary, middle and high school levels.
- Maintain both teacher and administrative representation on the DTTF.
- Invite United Teachers of Wichita (UTW) to select a representative to participate on the DTTF.
- Reorganize the DTTF to include students from the district.
- Create or modify BOE policies as necessary to ensure that no conflict of interest between members of the DTTF and USD 259 is created with respect to technology implementation and hardware or software procurement.
- Develop interactive web based tools to facilitate data collection and survey feedback from both the DTTF and targeted community audiences.

- Integrate technology related news and accomplishments into all district communication vehicles as appropriate, to celebrate developments and communicate the district's return on technology investment.
- Create opportunities for the general public to see first-hand how technology is being implemented in our schools.

V. FUNDING

Identifying dedicated annual funding for technology integration is a challenge for a large urban school district. Funding provided by the state of Kansas in the form of facility weighting money will diminish significantly after the 2006-07 school year. Because of the Board of Education's priority for technology integration, some of these funds have consistently been invested directly into the classrooms of every school in the district. Increasing numbers of computers, along with interactive white boards, digital projectors, handheld computers (Palms), digital cameras, and classroom performance systems (CPS) have been provided to improve the instruction provided for all students. Because facility weighting funds are diminishing, our next challenge will be to identify dedicated funds to sustain current technology integration initiatives and promote ongoing new development.

The previous goal of providing computers for instruction, on a ratio of four students to one computer, has been reached. A new goal of two students to one computer has been set, with a target date of accomplishment by 2010-11. The 5-year purchasing plan has been adjusted to reflect the increase in computer inventory over the next five years. Two challenges result from striving to meet this goal. One will be to identify and commit a large enough funding source to sustain an increased computer inventory. The other will be to identify means by which to increase technical support in parallel to the hardware purchases. Support at the building level as well as centrally are functioning beyond capacity with the existing computer inventory.

However, identifying a continued source of funding for sustaining and expanding technology integration initiatives is only part of the challenge. A number of curriculum and business operation functions are becoming increasingly computer-dependent. While a few of the new initiatives are replacing antiquated processes, a growing number are new and require increasing amounts of technical support as well as staff development to enable personnel to continue to do their jobs. These growing needs affect the full range of certified and classified employees. The growth rate of technology enhancement in the last five years has far exceeded the rate of growth in our ability to support those enhancements. Competition from the business sector has exacerbated our problem as numerous technicians and programmers have left the district for more lucrative positions in the private sector. The employees, who choose to remain, find themselves working harder and working longer hours to enable the district to function in an effective manner.

Goal

District administration and staff will maintain a system-wide process for seeking, dedicated, annual funding for technology purchases and staff support in the effort to increase student achievement.

Responsibility: Instructional Technology Department, Chief Academic Officer, Management Information Services, Grants/Development Services, Purchasing, Budgeting, BOE.

Objectives:

- Continue to seek state and federal grants for technology integration as they become available
- Dedicate annual funding and resources to maintain the established district-wide five-year purchasing plan that results in a 2:1 student to computer ratio throughout the district by 2010-11.
- Ensure that the district-wide five-year purchasing plan, which includes of a five-year obsolescence plan, continues.
- Supply adequate training staff and timely technical support to ensure that the technology integration and implementation necessary for optimal student achievement and district business functions occur.
- Provide the funding necessary to insure that technology is integrated into the curriculum more effectively and to a greater and greater degree.
- Continue to explore alternative means of acquiring hardware, such as lease programs, to fulfill the technology needs of the district.

VI. COMMUNICATIONS

The work of a task force in the spring of 2005 revealed a significant discrepancy between what was happening inside the district with respect to technology advancements and integration and outside stakeholders' perceptions of what was occurring. From focus group feedback, the task force learned that several technology-based services parents and students desired were, in fact, already available.
Unfortunately, communication about those services had not occurred. Regular review of communication channels and messages being communicated should improve the quality of communication and increase the satisfaction and support from parents and the community, as future technology initiatives are implemented.

Goal

District administration and staff will effectively communicate the district's technology plan and accomplishments to internal and external stakeholders.

Responsibility: Instructional Technology Department, Chief Academic Officer, Management Information Services, Marketing and Communications

Objectives:

- Employ multiple means to communicate the technology plan and subsequent updates to include, but not be limited to: district web pages, local media, and meetings of the district council, principals, curriculum, DTTF, STS, Board of Education, and campus staff.
- Comply with KSDE requirements for district technology plan submission timelines (current submissions are required every three years).

VII. PORTAL TO THE FUTURE

The future related to technology, by nature, is unpredictable. In addition to the extensive District Technology Plan and its consequent implementation, ongoing discussions need to continue with respect to future direction of technology use and how it can be embedded in the educational processes to impact curriculum and student achievement. Certain technology trends can be predicted, while other technological innovations have not yet been conceived. The following list highlights ideas and potential applications of technology that might be implemented in USD 259 in the future. We would be shortsighted to exclude them from ***discussions related to future planning.***

- The purchase of paper textbooks will discontinue, all curriculum material of this type will be digital and available for laptops, hand held computers or other technology devices.
- Every student will be provided with a wireless Internet device for communications.
- All parents will have access student progress via Internet, text messaging, voice activated messaging system or other electronic medium.
- Every high school course will be available either in person or via Interactive Distance Learning (IDL). No classes closed due to low enrollment or staffing constraints, just access from another portal.
- Professional development delivered 24 hours a day via the Internet, you select it, you interact with it and you learn from it.
- Research and development centers will exist in every school, enabling students to be interactive in applying research, leading to hands-on applications.
- Schools and teachers will communicate assignments, attendance information and other messages with students via text messaging.
- Cyber tutoring will be available to students to re-teach content and provide follow-up to regular instruction and accommodate students' schedules who miss class.
- Holographic panels will exist in all learning spaces and replace typical monitors, enabling three-dimensional displays and interactive lessons for students and teachers.
- Cyber cameras will freely move throughout schools to monitor activity in classrooms and halls.
- GPS monitoring devices will help locate school buses and district vehicles.
- Simulation programs will enable students to visit and interact with times and places beyond the confines of time and distance.
- Teaching will be recorded for pod-casts and web-casts – this will become an after hours tool for students as well as a staff development tool where beginning teachers will be able observe experienced teachers.
- Creating network of Virtual Schools to meet the changing needs of the student population.
- Students will collaborate with others, either within a single classroom or between multiple settings, possibly separated by long distances and/or cultures, to create knowledge and understanding through technology enhanced project based learning.
- Student attendance will be accomplished, using the process of swiping their identification cards.

VIII. APPENDIX

A. State Technology Report

The District's Technology Plan has an approval life span of three years. This current plan is due for submission by April 1, 2007. Assuming approval is granted by the state, it would be in effect from July 1, 2007 through June 30, 2010.

Eleven sections comprise the online technology plan submission process. Nine of those sections are rated by technology plan readers at the state level using a three-tier rubric: (1) Awareness *(area of rubric rating is addressed in plan, but appears incomplete in some ways)*; (2) Emerging *(area of rubric rating is addressed with significance and depth, but lacks qualitative and quantitative supporting data)*; (3) Leadership *(area of rubric rating is addressed with significance and depth, including qualitative and quantitative supporting data).*

The nine categories are:

1) Committee Membership / Stakeholder Representation
2) Technology Needs Assessments
3) Instructional Technology Vision Statement
4) District Technology Use Goals and Objectives
5) Technology Use Assessments
6) Curriculum Integration and Enhancement
7) Curriculum Integration Assessments
8) Professional Development - Teachers and Administrators
9) Technology Professional Development Assessment

Content to be submitted on behalf of the Wichita Public Schools in the nine different categories will demonstrate various levels of proficiency. Level 2 "emerging" is the required average rating that a plan must receive in order to be approved. It is expected that the technology plan for USD 259 will receive a level 2 or higher in all categories. The first two sections outlined below require yes, no or open ended responses.

Policy & Practice questions (use policy, donated equip standards, inventories, filter use, budget plans, equitable distribution of technology, PD for non-teachers) ***All questions received affirmative answers.***

District Vision - The school district mission statement is used to focus the vision for instructional technology. All school improvement initiatives across the district are tied to the overall mission of the school district. ***(response identified 5 of the goals from the District's Strategic Plan related to technology, planning, stewardship and curriculum***

The nine sections outlined below will be rated using the rubric and the anticipated rating is shown for each, along with content description.

- **Committee Membership / Stakeholder Representation** - This section identifies the membership of your Technology Plan Committee. Membership should include representatives from all constituencies: Students, teachers, administrators, parents,

educational institutions, and the community. ***(need student participation) – Emerging***

- **Technology Needs Assessments** - This section identifies and explains the technology assessment process that is used to drive acquisitions and deployment of technology resources. What assessments is your district using to make decisions regarding the needs for purchase of computers, software, and other technology resources and services? What target groups are surveyed and how often? How does the data collected influence planning for future use of resources, and acquisition of new technologies? ***(lacks substantial quantitative data) – Emerging***

- **Instructional Technology Vision Statement -** The Vision for the use of Instructional Technology conceptualizes the outcome of implementing the instructional technology plan. How is your school district using and planning to use instructional technology to reach the goal of improving student learning as defined in your schools' individual school improvement plans? ***(Vision is tied to student learning outcomes and includes curriculum integration. The vision guides district level decisions regarding instruction and learning outcomes) – Leadership***

- **District Technology Use Goals and Objectives -** Goals are broad statements of the purpose of the plan. Clearly stated goals for broad based learning outcomes are stated. Goals are linked to site improvement plans, district plans, and state plans. Objectives are the means/methods to reach the goals. ***(technology goals are used to implement the school improvement plans and transform the learning process from teacher centered to student learning centered) – Leadership***

- **Technology Use Assessments -** Baseline data is gathered to assist the technology committee in determining what goals and objectives are established. ***(Qualitative and quantitative data from the assessment is used to drive decision making regarding technology integration into the curriculum) – Leadership***

- **Alignment to the Vision – Curriculum Integration and Enhancement -** This statement presents a description of technology as it is currently used for instruction, and the ways for technology to be integrated more completely into the learning environment. It defines how you will integrate technology to support the learning needs of students as defined in your schools' improvement plans. ***(integrating research based technology strategies of teaching and learning, and there is evidence that student learning has been enhanced and transformed through the integration of technology into student learning models) – Leadership***

- **Assessment of Curriculum Integration and Enhancement** - How are you going to assess progress toward curriculum integration? What measures will you use to monitor what is happening in the classrooms, and what learner outcomes are being met? ***(regular, ongoing assessment provides quantitative and qualitative data to drive curricular decision making) – Leadership***

- **Alignment to the Vision – Professional Development** - This section defines the district professional development in technology plan. The exemplary action plan includes multiple strategies, incentives, and resources, and supports building level research based staff development plans. ***(Technology professional development includes multiple strategies, incentives, and resources, supports building level staff and student learning objectives and outcomes. Professional development is ongoing and leads to student learning activities in the classrooms) – Leadership***

- **Technology Professional Development Assessment** - Technology professional development is carefully and thoughtfully assessed, with the goal of supporting teachers and administrators in using technology to improve student learning. ***(Variety of appropriate assessments are implemented and used to monitor this progress on a regular basis. Qualitative and quantitative data from the assessments are used to drive decision making regarding professional development) – Leadership***

B. District Training Matrix

								eSIS								Student Achievement Data Systems							Assessments																	
Employee Group	Basic Windows (internet/intranet)	Word	Excel (Basic)	Outlook	Access	SharePoint Portal		Teacher Assist - Attendance	Electronic Grade Book (1)	Parent Assistant	Special Ed - IEP (2)	Mobile Assistant *	Elementary Progress Report *	Middle School Progress Report *		Student Profile	Reports by Level	Personnel Reports for Schools	Integrate District Assessment Data	Employee - Attendance	SchoolNet		On-line Assessment tool (eInstruction)	SRI	DIBELS	Dial 3	BRI	NWEA/MAP	Kansas Computer Assessment (KCA)	Exam View (item bank) *		Oracle eFinancial	Work Order	Payroll	Purchasing	My Learning Plan	Steps - NTLB	Steps - 14 Other Classes
Bldg. Admin.	M	M	M	M	O	R		R	Rs	Oh	O	R	Re	Rm		M	M	M	M	M	M		M	M	Me	Me	Me	M	M	R		M	O	R	M	M	R	O
Bookkeepers	M	M	M	M	O	O		-	-	-	-	-	-	-		-	-	-	-	-	-		-	-	-	-	-	-	-	-		M	M	M	M	M	M	M
Cafeteria	M	M	O	M	-	O		-	-	-	-	-	-	-		-	-	-	-	-	-		-	-	-	-	-	-	-	-		O	O	O	O	M	-	-
Campus Support - Instructio-l Facilitator	M	M	M	M	O	R		O	Os	-	-	O	Re	Rm		M	M	-	M	M	M		M	M	Me	Me	Me	R	M	M		O	-	O	O	M	M	R
Central Office Admin. (inst)	M	M	R	M	O	R		-	-	-	-	-	-	-		R	R	M	R	M	R		R	R	R	R	R	O	R	R		M	O	R	M	M	R	O
Central Office Admin-ops	M	M	R	M	O	R		-	-	-	-	-	-	-	-	-	-	-	-	M	-		-	-	-	-	-	-	-	-		M	O	R	M	M	-	-
Counselors	M	M	M	M	O	R		R	R	R	O	O	M	M		R	R	O	R	-	M		R	R	R	R	R	R	R	O		-	-	-	-	M	O	O
Custodian/Engineering	M	M	O	M	-	O		-	-	-	-	-	-	-		-	-	-	-	-	-		-	-	-	-	-	-	-	-		O	R	-	O	M	-	-
Instructio-l Supt Staff (ITD)	M	M	M	M	M	M		M	Rs	Rh	O	M	Me	Mm		M	M	-	M	M	M		M	M	M	M	M	M	M	M		R	O	O	M	M	M	M
Media Specialist	M	M	R	M	O	R		Xs	Xs	-	-	-	-	Xm		-	-	-	-	-	-		-	-	-	-	-	-	-	-		-	-	-	-	M	M	O
Nurses	M	M	M	M	O	O		R	-	-	M	-	-	-		-	-	-	-	M	O		O	O	O	O	O	O	O	O		-	-	-	-	M	O	O
Para's (Must have continued learning.)	M	M	O	M	-	O		R	R	O	M	R	R	R		R	R		R	M	O		O	O	O	O	O	O	O	O		-	-	R	-	M	-	M
Parent Involvement Workers/Parent Teacher	M	M	O	M	-	O		R	-	R	R	R	R	R		M	M	R	M	R	O		M	M	Me	Me	Me	O	M	M		-	-	-	-	M	O	M
Psychologist/Social Workers	M	M	O	M	O	O															R							R								M		
Registrar	M	M	O	M	O	O		R	R	R	O	O	-	M		M	M	M	M	M	O		R	R	R	R	R	O	R	R		R	R	R	R	M	R	R
Secretarial/Clerical (school)	M	M	M	M	O	R		M	M	M	M	M	M	M		M	M	M	M	M	-		O	O	O	O	O	O	O	O		M	M	M	M	M	M	M
Secretarial/Clerical (central)	M	M	M	M	O	R		-	-	-	-	-	-	-		R	R	R	R	R	-		-	-	-	-	-	-	-	-		R	R	R	R	M	-	M
Security	M	M	M	M	O	O		-	-	-	-	-	-	-		-	-	-	-	-	-		-	-	-	-	-	-	-	-		O	O	O	O	M	-	-
Service Workers (SSC)	M	M	-	M	-	O		-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-		O	O	O	O	M	-	-
STS	M	M	M	M	M	M		M	Ms	Mh	R	R	Me	Mm		M	M	-	M	M	M		M	M	Me	Me	Me	M	M	M		R	R	O	R	M	M	R
Teachers	M	M	M	M	O	R		M	Ms	Mh	M	O	Me	Mm		M	M	-	M	M	M		M	M	Me	Me	Me	M	M	M		O	-	O	O	M	M	R
Technical Sup Staff(MIS)	M	M	M	M	O	M		O	O	O	O	O	O	O		O	O	-	O	M	O		O	O	O	O	O	O	O	O		O	O	O	O	M	O	-

M=mandatory
R=Recommended
O=Optio-l
- = -

Xs=secondary only
Xh=High Schools only
Xm=Middle Schools only
Xe=Elementary Schools only

(1) Required for all certified staff with students assigned to them and STSs - High Schools and some Middle Schools
(2) Only for Special Ed Teachers
(3) Applies to those that are Administering the Assessments

* Near Future Application/training provided as appropriate/as available by level

C. District Technology Task Force – Membership 2007

Cathy Barbieri,	CIO, Director of Management Information Services - Admin
Eldon Chlumsky,	Coordinator of Driver Ed & Middle School Tech Ed - Admin
Steven Shook,	Director of Instructional Technology - Admin
Mary Ellen Isaac,	Chief Academic Officer - Admin
Shirley Ford,	District Operations - Admin
Darrin West,	District Facilities - Admin
Wendy Johnson,	Marketing and Communications Division Director - Admin
Scott Baxter,	North High School STS - Teacher
Rick Darling,	Truesdell Middle School STS - Teacher
Stacie Meyer,	Colvin Elementary School Asst. Principal - Admin
Julie Bettis,	Stanley Principal - Admin
Shelly Martin,	Hadley Middle School Principal - Admin
Lori Doyle,	West High School Principal - Admin
Robin Surland,	Instructional Technology Specialist – Teaching Specialist
Brad Niessen,	Instructional Technology Specialist – Teaching Specialist
Harvey Brown,	Airbus - Community
Dr. Max Frazier,	Assistant Professor, School of Education-Newman University– Institution of Higher Education
Sherry Goodvin,	Technology Director Maize High School - Community
Sarah Skelton,	USD 259 BOE member – Community
Tonya Loper,	Parent – Business Community

D. District Technology Committees

Student Achievement Leadership Team (SALT)
eSIS Planning Team
eSIS Steering Team
Hardware Standards
Software Standards
Internet Safety
Internet Advisory

E. Summary of 5 year Computer Purchasing Cycle

*Based on 47,500 students (selected sites have been omitted from the calculations due to special needs).
Only computers purchased as part of this plan are used to calculate the listed student to computer ratios.

The 5-Year cycle reflects the district's commitment to providing a base level of technology to all students and staff by ensuring equitable access to computers. It is important to note that this plan establishes the minimum requirements for computers in our schools. Schools may choose to purchase additional technology using building based funds to complement this plan.

The 5-year cycle targets various computer needs for both instructional use as well as selected operational and support services. The computer acquisitions outlined in the table will usually be purchased in the spring of the designated school year. Budgeting prices are based upon $1000 for a desktop unit and $1250 for a laptop unit (including battery replacement).

Budget Year 5 2006-07	**Budget Year 1 (refresh) 2007-08**	**Budget Year 2 (refresh) 2008-09**	**Budget Year 3 (refresh) 2009-10**	**Budget Year 4 (refresh) 2010-11**
1500 Instructional space computers 30 laptops & 30 desktops to equip ITD staff development lab 110 for school libraries (2 computers for a library if over 1000 students in the school) Trade in at least 1670 computers older than 5 years.	1750 computers for all MS & HS classroom teacher use 450 computers for MS & HS offices Trade in at least 2200 computers older than 5 years.	1750 computers for all elementary classroom teacher use Trade in at least 1750 computers older than 5 years.	1500 Instructional space computers 690 computers for MS technology labs Trade in at least 2190 computers older than 5 years.	1500 Instructional Space computers 200 Laptops to support Special Education services 360 computers for Elem. Offices Trade in at least 2060 computers older than 5 years.
Maintains minimum of 8700 computers in classrooms	Maintains minimum of 8700 computers in classrooms	Maintains minimum of 8700 computers in classrooms	Maintains minimum of 8700 computers in classrooms	Maintains minimum of 8700 computers in classrooms
*District Ratio of 5.5:1	*District Ratio of 5.5:1	*District Ratio of 5.5:1	*District Ratio of 5.5:1	*District Ratio of 5.5:1
Budget: $2,430,000 Computers $1,677,500 Disposal $185,000 Servers/Other $100,000 Prof Dev NTLB $50,000 Software $417,500	**Budget: $3,085,000** Computers $2,200,000 Disposal $185,000 Servers $100,000 Prof Dev NTLB $50,000 Software $550,000	**Budget: $2,522,500** Computers $1,750,000 Disposal $185,000 Servers $100,000 Prof Dev NTLB $50,000 Software $437,500	**Budget: $3,072,500** Computers $2,190,000 Disposal $185,000 Servers/Other $100,000 Prof Dev NTLB $50,000 Software $547,500	**Budget: $2,950,000** Computers $2,100,000 Disposal $185,000 Servers/Other $100,000 Prof Dev NTLB $50,000 Software $515,000

Instructional Space Computers – Implications of lowering student-to-computer ratio

- Current district 5-year purchasing plan for computers, maintains an inventory of 8700 computers in the classroom (as of June 2007). This plan is supported with "hard dollars" on an annual basis.
- "Soft dollars", (Facility Weighting funding, title, migrant, technology grants, Carl Perkins grants, PTO, principal discretionary $, etc), have added approximately 7,000 computers to the district's computer inventory located at school sites.
- Current student to computer ratio (as of Jan 07) is just above 3 to 1; for computers less than 5-years old with internet access.
- By the end of 06-07, 1600 computers will be added to the inventory from the centralized budget. However, that may have little effect on the overall ratio, due to the fact that a large number of computers will be disposed of as well, due to being older than 5-years.

To reach the student to computer ratio goals list below (and outlined in the district strategic plan), a corresponding computer inventory would have to be achieved – a corresponding purchase increase above and beyond the current purchase plan has also been listed. **The current purchase plan expenditures fluctuate between $2,430,000 and $3,085,000 each year.** The estimates below, do not take into account any purchases of computers from other funding sources. With facility weighting funding dwindling, the number of computers purchased by schools will decrease from previously experienced rates. Costs estimates below are based upon current purchase prices with Dell and include software licensing for all computers and replacement batteries and carts for laptop computers.

Concerns: The increase in computer inventory will be nearly 8250 from the current amounts (30% increase). Beyond the cost of computers, the Total Cost of Ownership will need to include site (STS) and centralized (MIS) tech support to service and maintain the equipment and facilitate ongoing functionality and ITD staff for training to implement instructional practices. Current support staff to computer ratios already exceeds customary business standards. Without consideration to increase current human capacity, additional computers introduced into the school usage inventory will be a challenge to support, maintain and integrate in a manner that will result in an appropriate return on the investment.

Existing wireless capacity cannot facilitate the demands that 8250 additional laptops would bring to the schools over the course of the next 5 years. Should the increased investment in computers include both laptop and desktop units, the current infrastructure is expected to be able to provide adequate connectivity for two to three years for some schools, depending upon equipment currently installed at each site. However, additional network equipment will be needed to meet growing demands throughout the district over the years to come.

Recommendation: Rather than using additional funding in the future to purchase more computers, consideration could be made to maintain student-to-computer ratio at 3:1; enable the existing inventory across the district to transition to laptops, rather than desktop configurations. Laptops would provide more flexibility and portability of use in schools. Develop a funding plan then, to support and sustain the growing acquisition of technology tools and devices such as projectors, Smartboards, Airliners and clickers. Equipment of this type will eventually require repair, maintenance or replacement. Many of these have been purchased with previously described "soft dollars", a source of funding that is anticipated to decline in the coming years.

The table below shows the increase of computers needed to attain the specified ratio of students to computers. The revised budget calculations add the increase to the existing 5-year computer purchase plan.

The cost for desktops includes the $250 per computer software license fees. The cost for laptops includes the $250 for license, the $48 for replacement batteries and est. $100 for each computer to absorb the cost of a cart per set of 15 laptops.

Budget Year 5 2006-07	**Budget Year 1 (refresh) 2007-08**	**Budget Year 2 (refresh) 2008-09**	**Budget Year 3 (refresh) 2009-10**	**Budget Year 4 (refresh) 2010-11**
335 additional instructional space computers Schools will be selected based highest student to computer ratio Schools choose between a set of 15 laptops (w/cart) or 17 desktops	1435 additional instructional space computers Schools will be selected based highest student to computer ratio Schools choose between a set of 15 laptops (w/cart) or 17 desktops	1730 additional instructional space computers Schools will be selected based highest student to computer ratio Schools choose between a set of 15 laptops (w/cart) or 17 desktops	2110 additional instructional space computers Schools will be selected based highest student to computer ratio Schools choose between a set of 15 laptops (w/cart) or 17 desktops	2640 additional instructional space computers Schools will be selected based highest student to computer ratio Schools choose between a set of 15 laptops (w/cart) or 17 desktops
Intended to meet target inventory of 15,835 instructional space computers	Intended to meet target inventory of 17,270 instructional space computers	Intended to meet target inventory of 19,000 instructional space computers	Intended to meet target inventory of 21,110 instructional space computers	Intended to meet target inventory of 23,750 instructional space computers
**District Ratio of 3:1	**District Ratio of 2.75:1	**District Ratio of 2.5:1	**District Ratio of 2.25.5:1	**District Ratio of 2:1
Budget: $469,000 Budget is based upon laptops being purchased. Cost per laptop includes software licensing, battery plan and cost for cart.	**Budget: $2,009,000** Budget is based upon laptops being purchased. Cost per laptop includes software licensing, battery plan and cost for cart.	**Budget: $2,422,000** Budget is based upon laptops being purchased. Cost per laptop includes software licensing, battery plan and cost for cart.	**Budget: $2,954,000** Budget is based upon laptops being purchased. Cost per laptop includes software licensing, battery plan and cost for cart.	**Budget: $3,696,000** Budget is based upon laptops being purchased. Cost per laptop includes software licensing, battery plan and cost for cart.
Revised annual budget	**Revised annual budget**	**Revised annual budget**	**Revised annual budget**	**Revised annual budget**
$2,899,000	**$5,094,000**	**$4,944,500**	**$6,026,500**	**$6,646,000**

**District ratio is determined by dividing the number of students in the district by the number of computers identified as being in classrooms or in schools, available for student use. Some specialty sites are not included in the calculations.