NOGALES UNIFIED SCHOOL DISTRICT NO. 1

AGENDA ITEM SUMMARY

ITEM: ACTION_____ APPROVED:_____
Approval of Nogales Unified School District 3 year Technology Plan (Renewal)

SUBMITTED BY: Alejandro Lopez *A.L.* DATE SUBMITTED: 05/06/2013
Technology Director

BACKGROUND:

The Nogales Unified School District Technology Plan establishes the long-range structure which the District will approach technology needs from July 1, 2013 through June 30, 2016. The plan fulfills compliance with the provisions of the Children's Internet Protection Act (CIPA) as per the Department of Education. Additionally, this plan confirms applications for E-rate funding for FY 2012-2015.

RECOMMENDATION:

The Administrative recommendation is that the Governing Board approves the 2013-2016 Nogales Unified School District #1 Technology Plan.
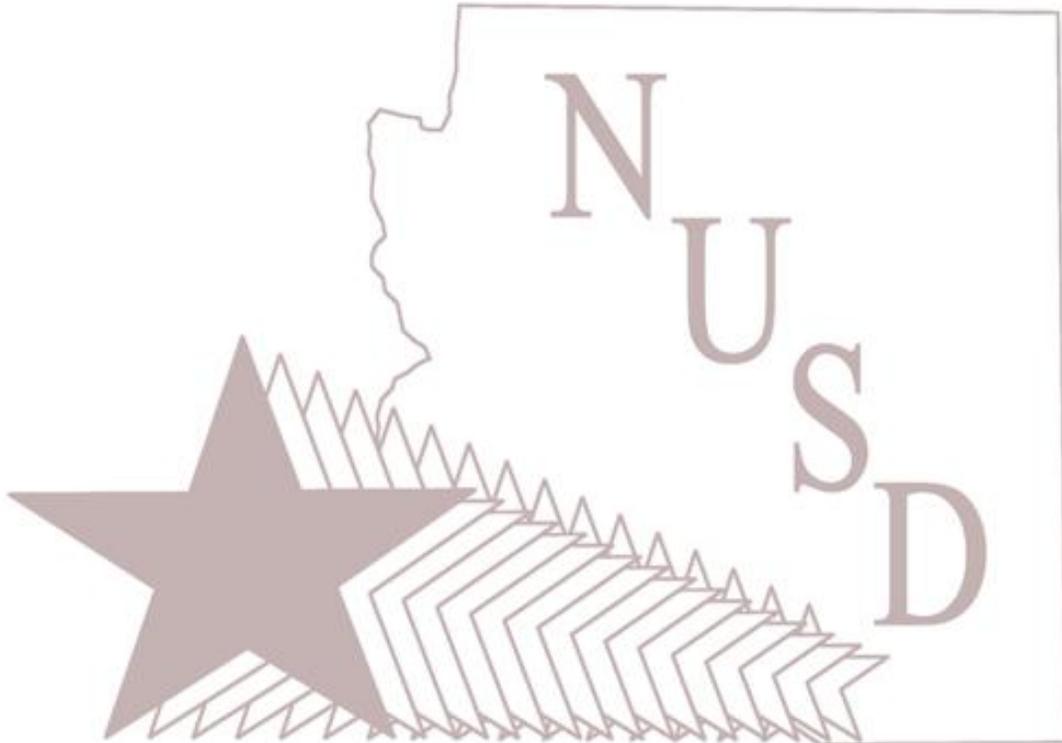
ENCLOSURES:

NUSD #1 Technology Plan
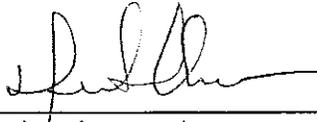
_____ ___5/13/13_____
Board Member Approval   Date

Nogales Unified School District #1

Educational Technology Plan
July 1, 2013 – June 30, 2016

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LEA Profile

This information should provide a "snapshot" of your district and help planners and reviewers to understand areas of need.

LEA Profile

LEA NAME: Nogales Unified School District #1

CTDS: 120201000

NUMBER OF SCHOOLS IN LEA	10
NUMBER OF TEACHERS	300
E-RATE BILLED ENTITY NUMBER (if not applicable, indicate N/A)	143084

CIPA CERTIFICATION

(Schools or Districts who apply for E-Rate should check the first option below)

___X__ The LEA applies for E-Rate funds and are therefore not required to submit CIPA compliance under ESEA to the Arizona Department of Education, but instead submit CIPA compliance certification directly through E-Rate application.

_____ Every "applicable school"1 has complied with the CIPA requirements in sub-part 4 of Part D of Title II of the ESEA.

_____ Not all "applicable schools"1 have yet complied with the requirements in sub-part 4 of Part D of Title II of the ESEA. However, the LEA has received a one-year waiver from the U.S. Secretary of Education under section 2441(b) (2) (C) of the ESEA for those applicable schools not yet in compliance.

_____ The CIPA requirements in the ESEA do not apply because no funds made available under the program are being used to purchase computers to access the Internet, or to pay for direct costs associated with accessing the Internet, for elementary and secondary schools that do not receive e-rate services under the Commission Act of 1934, as amended.

1(An "applicable school" is an elementary or secondary school that does not receive e-rate discounts and for which Ed Tech funds are used to purchase computers and used to access Internet, or pay the direct costs associated with accessing the Internet.

TECHNOLOGY PLAN CONTACT INFORMATION

Primary Technology Plan Contact Information

Name: Alejandro Lopez   Telephone #: 520-397-7916

Title: Information Technology Director   Fax #: 520-287-9182

Address: 310 W. Plum St., Nogales, AZ 85621 E-mail: alexl@nusd.k12.az.us

Secondary Technology Plan Contact Information

Name: Steve Zimmerman   Telephone #: 520-397-7917

Title: Superintendent   Fax #: 520-287-2760

Address: 310 W. Plum St., Nogales, AZ 85621 E-mail: szimmerman@nusd.k12.az.us

LEA APPROVAL & SIGNATURE

Date the plan was approved by the LEA governing board:

OR

Date the plan will be submitted for board: May 13, 2013

Signature of Authorized LEA Agent (signed in Blue ink)

Date: May 13, 2013

_____

Printed Name	**Title:**

Technology Committee

LEA Technology Committee

Member	Title	Constituency Represented
Kathryn Haddock	Teacher/Committee Chair	Elementary Teacher
Alejandro Lopez	Technology Director	District Administration
Steve Zimmerman	Superintendent	District Administration
Javier Barajas	Asst. Principal	District Administration
Kathy Scott	Grants Director	District Administration
Karla Soto	Business Manager	District Administration
John Utne	Director of Student Services	District Administration
Maritza Cervantes	Teacher	Elementary Teacher
Angel Canto	School Improvement Director	District Administration
Carlos Tavares	District Network Technician	District Technology Team
Dr. Molly Alcaraz	Principal	Elementary Principal
Kathryn Haddock	Teacher	Elementary Teachers
Michael Cota	Power School Specialist	District Staff
Larry Frederick	Teacher	Elementary Teacher
Robert Lugo	Teacher	Vocational Teacher
Linden Martin	Teacher	MS Teacher
Ruben Reyes	HS Technician	HS Staff
Dr. Lucina Romero	Principal	Elementary Administration
Doug Muri	Teacher	MS Teacher
Annette Barber	Principal	Elementary Administration
Claudia Welden	Principal	Elementary Administration
Fernando Parra	Asst Superintendent	District Administration
Joan Molera	Principal	MS Administration
Joel Kramer	Principal	HS Administration
Liza Montiel	Principal	MS Administration
Marie Vazquez	Principal	Elementary Administration
Michelle Olguin	Principal	Elementary Administration
Mayra Zuniga	Human Resources Director	District Administration
Adan Ibarra	District Technician	District Staff
Eduardo Michel	MS Technician	MS Staff
Gabriela Bernal	Teacher	Elementary Teacher
Jorge Lira	MS Technician	MS Staff
Judith Mendoza	Principal	HS Administration
Kathryn Haddock	Teacher	Elementary Teacher
Marco Zamudio	District Technician	District Staff
Pat Mendez	District Technician	District Staff
Vanezza Gallego	Teacher	Elementary Teacher
Sara Mora	Teacher	Elementary Teacher

Technology Vision and Mission

Vision Statement

It is the vision of NUSD to provide every individual in the district with the opportunity to learn and succeed to the highest level of achievement possible. This commitment should provide every student, teacher and staff member in the district with adequate access to state of the art technology to ensure that student academic achievement is maximized at all locations throughout the district.

Mission Statement
Working cooperatively within a positive environment, all students will be prepared to be successful with skills to guide them through the 21st-century to excel in school — and throughout life.

STUDENT LEARNING

Current Reality
Students at all grade levels across the district are exposed to technology. Technology is used for student assessment, identification of students needing interventions, data analysis, and integration with curriculum. Some lessons currently include the use of interactive white boards, airliners, projectors, over head projectors, digital cameras, document cameras, web cams, microphones, computers and computer labs. In Elementary schools the labs are generally utilized during scheduled "specials" time thus occupying the majority of the daily lab time available.   Computers are used to reinforce skills presented by teachers as well as assisting students with reading comprehension through a variety of remedial and enrichment software programs and online learning resources. In the middle schools and high schools there is more direct instruction of technology and some integration of technology skills into the daily production of student work. Ideal is available with links to Think finity, ItunesU, and more.   The high school has been converted to a wireless LAN campus increasing the level of utilization. The integration of interactive technologies in the classroom across the district is an ongoing project. The district provides an outsourced website promoting increased parental involvement and student engagement by providing timely information about activities, events and class happenings.

Nogales Unified School District #1 Needs
- AV equipment including but not limited to Interactive technologies, projectors, classroom audio speakers.
- Offer students a variety of technology courses and instructional opportunities at all grade levels.
- Provide all students equal access to technology to enhance student learning and engagement.
- Ensure a safe environment for all internet and messaging activities.
- Promote increased parental involvement.
- Implement a cloud based utility for student collaboration

Goals & Strategies
N.U.S.D. #1 goals are:
- Students will develop the skills, knowledge, and abilities to use technology to achieve educational and occupational success in today's globally oriented, technologically connected society.
- Students will effectively communicate with others using electronic media, such as e-mail, Web sites, message boards, blogs, streaming media, presentation software, etc.
- Provide students with formal instruction in the use of technology, rather than simply to use technology as a means to an end.

- Ensure all students are "technologically literate" by the completion of eighth grade.
- Use technology to provide improved communication between home and school.
- Determine appropriate technology access and assistive technology needs of special needs students.
- Continue to implement policies for internet usage to ensure safe computer usage at all schools.

The Following strategies will support these goals:

Strategy	Cost & Funding	Timeline	Evaluation Measures
Filter and block access to inappropriate websites.	**Est. Cost:** $10,000.00 **Funding Sources:** M&O	2013-2016 SY Ongoing	District connectivity logs.
Employ and provide students with access to free, open source software, such as Open Office Suite, Google docs, Web 2.0 tools.	**Est. Cost:** N/A **Funding Sources:**	2013-2016SY Ongoing	Lab scheduling logs
Maintain programs already in place to enhance technology skills and assessment skills (e.g., continue online testing using the ATI Online Galileo site).	**Est. Cost:** $75,000.00 **Funding Sources: Title I**	2013-2016SY Ongoing	Assessment results
Continue to provide access to instructional software with emphasis on reading, writing and math.	**Est. Cost:**$150,000.00 **Funding Sources:** Title I, Title III	2013-2016SY Ongoing	Improved scores in reading, writing and mathematics in state mandated assessments.
Identify special education students' needs and provide assistive technology.	**Est. Cost:** $1,000,000.00 **Funding Sources:** IDEA basic entitlement, IDEA preschool (grant)	2013-2016SY Ongoing	IEP recommendations
Maintain district and school websites to provide parents with timely information about activities, events and class happenings.	**Est. Cost:** $17,028.00 yearly **District Share:** $2,383.92 **Funding Sources:** M&O, E-rate Federal funds	2013-2016SY Ongoing	District and school web pages usage logs.

Total Estimated Costs for Student Learning. **$ 1,252,028.00**
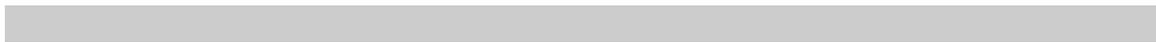
Current Reality

All administrators are equipped with necessary technologies and resources to successfully perform daily duties. All school offices and Administrative offices have computers and networked printers for staff use. They are provided with phone service that allows Internet and telephonic communications for each site. This form of communication allows the administrator to be reached via email or phone in the event of an emergency. Online data analysis tools and student information database technologies such as ATI and Power School are used throughout the district to manage and track student performance, progress, attendance, and then communicate that data with parents and students. Site libraries employ book management software such as Destiny to provide site to district real-time management of resources. All site administrators ensure that their facilities meet minimum standards of technology by developing and maintaining a site technology plan. All teachers are granted equitable access to computers and are encouraged to use the district email, MS Exchange 2010, as a means of communication. Technical support and on-going professional development are offered to teachers and staff. A yearly assessment is administered to evaluate the progress of staff development with regard to computer literacy.

Nogales Unified School District #1 Needs
- Utilize technology skills assessment survey for all administrators and support staff.
- Maintain and support existing technologies and resources.
- Provide specialized training in the interpretation and use of information. Technologies including student performance information.
- Maintain a yearly site technology plan.
- iObservation training and tablet implementation
- Safe Schools staff training on Cyber bullying and Child Internet Protection Act

Goals & Strategies

N.U.S.D. #1 goals are:
- Conduct a technology skills assessment survey to determine readiness relative to technologies currently in use, as well as to determine what options should be considered for adoption.
- Ensure that all administrators are equipped with tools necessary to perform daily duties.
- Provide all the Administrators with the necessary training for the ever-changing technological devices utilized in the classrooms.
- Support district and site use of technology to improve student achievement, data collection, analysis reporting and decision making.
- Adjust site plans from year to year as hardware and software improvements are made.

- Train all site Administrators in the use of the iObservation tool
- Complete Safe Schools Training as required

The Following strategies will support these goals:

Strategy	Cost & Funding	Timeline	Evaluation Measures
Continue to provide Cell phone/radio service	**Est. Cost:** $92,000.00 **District Share:**$12,880.00 **Funding Sources:** M&O, E-rate Federal funds	2013-2016SY Ongoing	RFP every year to ensure value and reliability of service. Finance and Technology dept.
Maintain necessary telecommunication components to meet district needs.	**Est. Cost:** $95,000.00 **District Share:**$13,300.00 **Funding Sources:** M&O, E-rate Federal funds	2013-2016SY Ongoing	Phone logs and billing records.
Provide trainings for effective usage of technology for administration.	**Est. Cost:** $2,000.00 **Funding Sources:** Science foundation grant, state board of education	2013-2016SY Ongoing	Staff development attendance logs
Continue to utilize ATI online assessment for data collection, analysis reporting and decision making.	**Est. Cost:** $75,000.00 **Funding Sources: Title I** **This item is also listed in the student learning strategies.**	2013-2016SY Ongoing	Effectiveness of program and formative assessment results.
Provide in house training and support for student information database technologies and potential uses. (1 SIS Specialists)	**Est. Cost:** $35,000.00 **Funding Sources:** M&O	2013-2016SY Ongoing	Schedule site staff development activities, sign in sheets and agendas.
Technology committee will meet throughout the year to assess the implementation of site plans and to ensure that it reflects the current reality.	**Est. Cost:** N/A **Funding Sources:**	2013-2016SY Review annually	Inventory of types and quantity of technology available.
iObservation	**Est. Cost:** $60,000.00 **Funding Sources: Title II**	2013-2016SY Ongoing	System reports
Safe Schools Training	**Est. Cost: $3,688.00** **Funding Sources: M&O**	2013-2016SY Review yearly	Certificate of completion

Total Estimated Costs for Leadership: **$362,688.00**

PREPARATION AND DEVELOPMENT OF EDUCATORS

Current Reality

Teachers within the district manifest a wide range of technology-related abilities. Some teachers currently include the use of interactive white boards, airliners, projectors, over head projectors, digital cameras, document cameras, web cams, microphones, computers and computer labs. However the majority use technology for organization and administrative tasks and are beginning to extend the use of technology into curriculum. Teachers are in great need of on-site professional development that increases basic technology skills and utilizes the technology that is already available in the classroom. Currently teachers have received training such as: Smart Board, Airliner, use of district resources, free online tools, Promethean, Open Office, Document cameras, lesson creation, Sexting, and Internet safety.

The role of professional development to assist and support teachers in this attempt is essential and must be ongoing. Teachers must integrate new strategies to fully develop their learning environments which will include modern technologies that may be unfamiliar to many.

Nogales Unified School District #1 Needs
- Regularly administer a technology skills assessment survey for all teachers.
- Ensure that technology is available for all teachers to utilize as an integral instructional tool that is available in each classroom.
- Allocate time for training at different levels addressing all teachers' needs and ensuring optimal use of technology in the classroom.
- Safe Schools Training

Goals & Strategies

N.U.S.D. #1 goals are:
- Conduct an annual technology skills assessment survey to determine teacher readiness relative to technologies currently in use, as well as to determine what options should be considered for adoption.
- For all teachers to be proficient in general computer knowledge and skills.
- For all teachers to integrate technology into their instructional activities aligned to state standards.
- Provide access to curricular materials and resources that support the use of technologies in the classroom to help all students attain high academic achievement.
- Safe Schools Training

The Following strategies will support these goals:

Strategy	Cost & Funding	Timeline	Evaluation Measures
Require yearly assessment surveys to monitor proficiency progress.	**Est. Cost:** $50.00 **Funding Sources: M&O**	2013-2016SY Annually	Assessment results.
Offer flexible training options, such as before/after school, Saturdays, prep-time, in class modeling, sub release and online courses.	**Est. Cost:** $10,000.00 **Funding Sources:** Grant	2013-2016SY Ongoing	Staff development attendance logs
Expose teachers to new and emerging educational technologies.	**Est. Cost:** $150,000.00 **Funding Sources:** Capital	2013-2016SY Ongoing	Review the use of 21st Century district purchased technologies.
Train teachers in Internet safety and privacy practices. (Safe Schools)	**Est. Cost:** $3,688.00 **Funding Sources: M&O** **This item is also listed in the leadership strategies**	2013-2016SY Ongoing	Certificates of completion

Total Estimated Costs for Student Learning: **$163,738.00**

INFRASTRUCTURE

Current Reality
Nogales Unified School District has a Wide Area Network (WAN) that spans out to connect all 11 sites to central administration at a rate of 100 mbps and to a central internet connection LAN at 45 Mbps. 85 servers and approximately 3,000 computers are in service throughout the school district. All classrooms have access to the district's network and resources consisting of 5,000 10/100 mbps Ethernet drops, all of them have access to the internet. NUSD's district office and Nogales High School have wireless local area network for accessing network resources and the internet for students and staff. Schools are connected among each other and back to the district office using 10/100 mbps microwave wireless links. Each school has wired 10/100 mbps data drops with access to the internet. At any given time during peak time (8am-3:30pm) there can be between 650 and 1000 users on the network or on the internet. Teachers and staff have individual access to computers and each school has one or two computer labs and computers available to students in mobile carts and classroom mini labs. The level of access is determined by each schools availability of computer lab or mobile lab schedules and classroom computer mini lab availability. Each teacher has a computer on their desk and a laptop to work with at home. Currently all classrooms have a projector and interactive-board type devices. We are working on placing one ceiling mounted projector per classroom. All teachers are expected to access their email daily as well as the student management system to submit attendance and grades. All administrators also have a computer on their desk and a laptop for mobility and are equipped with Smartphones assuring communication via email or phone in the event of an emergency. The replacement cycle is approximately every 3 to 4 years for computers. The aforementioned was made possible through the support of E-rate. E-rate has played a major role in sustaining and expanding technology for NUSD. Thanks to E-rate funding our district was able to build a very robust network infrastructure and has been able to take advantage of E-rate funding maintaining our district core network. Our wireless area network, having access to the internet, the use of Voice over Internet Protocol Telephony, the use of cellular phones and two way radios has made it possible to meet our district needs for business, human resources, district communications, and state reporting requirements. Our IT staff with the help of the computer lab specialists and school site technicians support an infrastructure of about 3,000 computers, 85 servers for approximately 6,200 students and 700 employees. The Technology Department consists of 5 technicians that support 10 school sites, 1 maintenance/warehouse facility and the district office. The technology department provides computer and printer repair services, helpdesk support along with network troubleshooting and repair. Elementary schools have Lab Specialists that provide technical and repair support at entry level. Middle Schools and High Schools have Computer Technicians that provide technical and repair support at an escalated level. Students at all grade levels are exposed to different technology tools, however, in order to improve student performance, NUSD faculty and staff have been focusing on implementing more developmentally appropriate technologies to help all students attain high academic achievement in federal, state and local content standards.

Nogales Unified School District #1 Needs

Internal Connections

- Basic maintenance & support
- Maintain outsourced Website for N.U.S.D. #1
- Wireless LAN for all school sites excluding Nogales High School.
- Replace current Voice Gateways at school sites and district office.
- Replace current DNS servers at school sites.
- Upgrade & replace current VoIP equipment and software
- Install IP base security surveillance cameras.
- Assessing the Internet Access Bandwidth requirements annually and increasing it as required meeting the Arizona Department of Education Technology Plan Standard of up to 10 mbps per 1,000 Students/Staff by the end of the Technology Plan.
- Assessing the District Wide Area Network Bandwidth requirements annually and increasing it as required meeting the Arizona Department of Education Technology Plan Standard of up to 100 mbps per 1,000 Students/Staff by the end of the Technology Plan.

Goals & Strategies

N.U.S.D. #1 goals are:

- Monitor growth in bandwidth and plan for additional capacity as needed.
- Implement and update infrastructure security measures.
- Continue to provide troubleshooting phone support and site visits as needed to assist teachers and staff members in the use of technology.
- Provide the hardware and infrastructure for wireless internet connectivity and other network services to all sites including classrooms and libraries.
- Continue to provide network support and computer repair services to all sites including district office.

The Following strategies will support these goals:

Strategy	Cost & Funding	Timeline	Evaluation Measures
Yearly Basic Maintenance & Support	**Est. Cost:** $45,000.00 **District Share:** $6,300.00 **Funding Sources:** M&O, E-rate Federal funds	2013-2016SY Annually	Vendor contract.
Increase Internet bandwidth	**Est. Cost:** $157,320.00 **District Share:** $22,024.80 **Funding Sources:** M&O, E-rate Federal funds	2013-2016SY	Vendor contract and connectivity records.
Maintain District Wireless WAN.	**Est. Cost:** $1,017,360.00 **District Share:** $ 142,430.40 **Funding Sources:** M&O, E-rate Federal funds	2013-2016SY Annually	Vendor contract and district connectivity records.
Wireless LAN at all school sites (exception of NHS)	**Est. Cost:** $169,438.00 **District Share:** $23,721.32 **Funding Sources:** M&O, E-rate Federal funds	2013-2016SY	Purchase distribution logs and district connectivity records.
Monitor network to identify and resolve problems before end-users are affected. (District Network Technician)	**Est. Cost:** $45,676.80 yearly **Funding Sources:** M&O	2013-2016SY Ongoing	Daily journal.
Maintain a process for selecting maintaining and upgrading software.	**Est. Cost:** N/A **Funding Sources:**	2013-2016SY Ongoing	Publish district software maintenance and replacement plan.
Ensure that all technology specifications are met. (Technology Director)	**Est. Cost:** $55,647.00 yearly **Funding Sources:** M&O	2013-2016SY Ongoing	Note areas of deficiency and recommended changes.
Ensure that helpdesk support is available during working hours tracking work order requests and completion of all computer repair services. (3 District Technicians)	**Est. Cost:** $96,781.60 yearly **Funding Sources:** M&O	2013-2016SY Ongoing	Help desk ticket log.
Renew annual license web filter, spam firewall, E-mail filter, virus protection software.	**Est. Cost:** $12,000.00 yearly **Funding Sources:** M&O	2013-2016SY Ongoing	Purchase distribution log and license log.
School Messenger	**Est. Cost:** $ 10,000.00 yearly **Funding Sources: M&O**	2013-2016SY Ongoing	Purchase contract and usage logs.

Total Estimated Costs for Infrastructure: **$1,609,223.40**

FUNDING

Total Estimated Funding Costs for Technology Plan Goals:

Estimated Annual Funding Costs for Technology Plan Goals (Total Cost/Plan Duration):

Average Annual Technology Funding

Funding Source	**Amount**	**Restrictions**
M & O	**$488,195.84**	
Capital	**$150,000.00**	Equipment and Computer Software
Title I, Title II-D, Title III	**$210,000.00**	Professional Development Technology Integration
	$0.00	
Overrides/Bonds	**$0.00**	
E-Rate	**$1,593,146.00**	Telecommunications/Infrastructure
Grants	**$1,012,000.00**	Student Assessment Technology
Total:	**$3,532,029.80**	

Average Annual Technology Costs

Expense Type	**Average Annual Cost**
Hardware/Network	**$ $609,107.41**
Software Purchases/Licenses	**$ $8,000.00**
Professional Development	**$ $10,000.00**
Phone Services	**$ 178,576.00**
Internet Access/WAN	**$ $1,210,346.64**
Technology Support	**$ 123,317.00**
Other (such as utilities, constructions, etc.)	**$**
Total:	**$ $2,187,288.05**

EVALUATION

The District has a Technology Committee that meets on a quarterly basis or as needed. The committee members include teachers, administrators, and staff from each site. The committee, along with the Director of Technology, provided input to the District Technology Plan and will be responsible for monitoring the progress of it as well. The information obtained through the monitoring and evaluation process will be used to change the plan accordingly to address any deficiencies. The evaluation process will include the maintaining, enhancing and supporting of hardware, software and network infrastructure capabilities. The process will monitor the continued assistance provided to teachers in the use and integration of technology into the classroom curriculum. It will monitor the use of new technologies and the impact on student achievement. Information gathered from the analysis of student achievement data will be used to measure the use of technology throughout the district. Results of the process and any suggested revisions to the plan along with recommendations will be reported to the Superintendent.