

# TECHNOLOGY PLAN: NEEDS ASSESSMENT

In order to ensure that all students have the skills and capacity to solve the complex problems facing society today and in the future, Arizona's strategic long-range technology plan makes a series of recommendations that guide efforts to enhance student learning through technology, prepare educational professionals and provide continued development throughout their careers, develop leaders with the skills and philosophy to support an educational process facilitated by technology, and provide the framework that supports a technology-enable learning process.

*Long Range Strategic Goals  
Transforming Education: Enabling Learning for All Arizona Students  
The Arizona Long-Range Strategic Educational Technology Plan, 2009*

The state technology committee made strategic recommendations for the following interrelated components: 1) Student Learning, 2) Leadership, 3) Preparation and Development of Educators, and 4) Infrastructure. Your Needs Assessment is a tool for you to evaluate your current realities in regard to these four components, as well as determining a list of the necessary needs your LEA has which will assist you with aligning your educational technology goals, strategies, and action steps with the Arizona technology plan. A summary of the recommendations and goals for each of the four components can be found throughout this Needs Assessment.

## LEA INTRODUCTION:

Briefly introduce and describe your school district or charter school.

The Mammoth-San Manuel school district is located in a small, rural community. It serves the towns of Mammoth, some secondary students from Oracle and the former mining town of San Manuel. The current student population is approximately 995 with a student to teacher ratio of 16/1. The district currently has four schools servicing students from grades K-12. The student population has a high (79%) free/reduced lunch rate and currently sees itself as serving an underprivileged population.

The San Manuel community has faced economic hardships since B.H.P Copper mine closed in 1999. B. H.P. was the largest copper smelter in the world and employed a majority of area residents. Since then, San Manuel has experienced the opening of a plastics company, which burned down and relocated its business out of the area and the only local grocery store has closed. Due to the lack of job opportunities within a 50 mile radius, parents must relocate, causing a drop in our enrollment, or travel a distance for work. Typically, both parents must work which leaves the children on their own much of the time. The schools have been the heart of the town throughout these hardships and we try to do all we can for our students.

Continued loss of tax dollars and state monies has not lessened the commitment in the educational community and provides each student with a safe, equitable and progressive learning environment guided by the AZ Common Core Standards, enabling them to become productive and responsible citizens.

The current curriculum is aligned to Arizona's Common Core Standards. This is an ongoing intensive process by all faculty and administration as the Common Core is newly implemented.

Technology has been incorporated throughout the district. SmartBoards have been installed in classrooms, teachers have computers of which they use for PowerGrade, data analysis for RTI, and online resources for their classroom such as web streaming and materials connected to the adopted curriculum. Many of our teachers have DocuCams and student response systems, Mobis are used by a few, and some classrooms have two or more student computers. Student computer labs are located at each district and we are continuing to work on developing pools of computers in each classroom for more immediate student access. This year we have our distance learning iTV unit in our high school library which is used by all schools in the district and have implemented a mobile iPad cart at each Elementary school for teachers to check out in accessing online resources for students to engage in the AZ Standards. The district's desire is to engage our students and integrate the technology in the curriculum in order that it may benefit them and produce college and career ready adults upon graduation from our district.

# ARIZONA TECHNOLOGY INTEGRATION:

Arizona's definition for fully integration technology is "LEAs who have embedded appropriate technology to support student learning across all curricular areas."

The U. S. Department of Education requires states to report the number of LEAs who have fully integrated technology.

Using the matrix below, self-assess the current reality of technology integration for your LEA. Please use the scoring rubric included in the matrix, and the final calculation and status of implementation at the end of the matrix.

Components	Developing (1 point)	Approaching (2 points)	Fully Integrated (3 points)	LEA Self-Assessment Score
<b>Staff Technology Proficiency</b>	No instrument(s) are available or utilized for assessing the level of technology proficiency of staff members.	One or more instruments are made available for staff to assess their level of technology proficiency.	An LEA utilizes a specific instrument(s) to assess the level of technology proficiency for staff.  An LEA has identified expectations/standards for the level of technology proficiency of staff and provided professional development for staff members to meet the expected level of proficiency.	<b>2</b>
<b>2009 Educational Technology Standard</b>	No specific curriculum resources with educational technology standard performance objectives are available and/or no alignment with educational technology standard performance objectives has occurred for any grade levels.	Some curriculum resources with identified educational technology standard performance objectives are provided for one or more content areas and/or grade levels.  Some alignment of Educational Technology Standard performance objectives with other core content areas may be evident across one or more grade levels.	Educational Technology Standard performance objectives have been aligned with other core content areas across all grade levels.  Curriculum resources are available to assist teachers with implementing instructional activities that have educational technology standard performance objectives embedded.	<b>2</b>
<b>Classroom Integration of Technology</b>	No instrument(s) are made available for assessing how effective a teacher is integrating technology in his or her classroom.  Technology in the classroom is almost exclusively used by the teacher.	One or more instruments are made available for teachers to self-assess how effectively technology is being integrated in their classroom.  Teachers use a variety of technologies to enhance instruction. Student use of technology occurs occasionally and is generally for research, presenting information, and creating some text and multimedia products.	An LEA utilizes a specific instrument(s) to regularly assess how effectively a teacher integrates technology into their classroom.  Teachers and students utilize technology daily to explore content, communicate and collaborate on real-world problems, provide real-time data of student progress and to assist teachers and students in individualizing a student's learning experiences.	<b>2</b>

<b>Components</b>	<b>Developing (1 point)</b>	<b>Approaching (2 points)</b>	<b>Fully Integrated (3 points)</b>	<b>LEA Self- Assessment Score</b>
<b>Professional Development/ Instructional Support</b>	No professional development or instructional support on the use of technology is offered.	Professional Development on the use of technology in the classroom is offered.  Instructional support for the effective use of technology is available for some teachers through instructional coaches or curriculum resources.	Professional Development is offered based on needs identified from Staff Technology Proficiency and Classroom Integration of Technology Assessments.  Professional Development is provided for content areas/grade levels on effective technology integration strategies and the use of curriculum resources available for educator's specific grade level and/or content area.  Coaches are available at each school site to assist teachers with implementing strategies for effectively integrating technology in the classroom.	<b>3</b>
<b>Availability of Technology</b>	Classrooms have 1-2 computers. Additional computers may be available in computer labs.	Classrooms include some additional instructional technology hardware (projector, interactive whiteboard, electronic response systems, document cameras, etc.) to assist with instruction. Classrooms have at least 1-2 computers and may have access to additional computers through computer labs and/or mobile carts.  Wireless access to the Internet is available in some schools.	Classrooms include a wide variety of instructional technology hardware (projector, interactive whiteboard, electronic response systems, document cameras, digital cameras, and digital camcorders) to assist with instruction.  Students have access to individual computing devices that can access the Internet.  Wireless access to the internet is available campus-wide across all schools.	<b>2</b>
<b>Technology Funding/ Technology Support</b>	LEA maintains a technology support staff to computer ratio of 1 person per 750 computers or greater.  Technology funding provides for a computer replacement cycle of 6 years or longer.	LEA maintains a technology support staff to computer ratio of 1 person to between 400-750 computers.  Technology funding provides for a computer replacement cycle between 4 and 6 years.	LEA maintains a technology support staff to computer ratio of 1 person to 400 computers or less.  Technology funding provides for a computer replacement cycle of 4 years or less.	<b>2</b>
<b>Comprehensive LEA Technology Integration Status</b>	<b>Developing - total 6–9 points</b>	<b>Approaching - total 10–15 points</b>	<b>Fully Integrated - total 16–18 points</b>	<b>13</b>

# STUDENT LEARNING:

The challenge for our education system is to leverage the learning sciences and modern technology to create engaging, relevant, and personalized learning experiences for all learners that mirror students' daily lives and the reality of their futures. In contrast to traditional classroom instruction, this requires that we put students at the center and empower them to take control of their own learning by providing flexibility on several dimensions. A core set of standards-based concepts and competencies should form the basis of what all students should learn, but beyond that students and educators should have options for engaging in learning: large groups, small groups, and work tailored to individual goals, needs, interests, and prior experience of each learner. By supporting student learning in areas that are of real concern or particular interest to them, personalized learning adds to its relevance, inspiring higher levels of motivation and achievement.

*Transforming American Education: Learning Powered by Technology  
National Educational Technology Plan (Draft), 2010*

## Long-Range Strategic Goals:

All learners will:

- have access to authentic learning activities appropriate to their development whenever and wherever they need.
- use appropriate strategies and technology to collaborate, construct knowledge and develop solutions to real-world problems.
- communicate effectively with global audiences.

*Long Range Strategic Goals  
Transforming Education: Enabling Learning for All Arizona Students  
The Arizona Long-Range Strategic Educational Technology Plan, 2009*

# CURRENT REALITY:

Select your implementation level for each recommendation in the columns provided.

Summary of Recommendations for the Local Education Agencies: <i>AZ Long-Range Strategic Ed Tech Plan, 2009</i>	Already Implemented	Currently Implementing	Planning for Implementation	Not Implementing
Provide district policies, curriculum, and resources to ensure that every student has the tools for an individualized, collaborative, and authentic learning experience.		X		
Select and deploy a variety of technology-based tools to provide differentiated instruction for every child by monitoring student assessment and suggesting developmentally appropriate content.	X			
Embed the <i>Arizona Educational Technology Standard</i> within the curriculum at each grade level.		X		
Select and utilize local, commercial, and open source digital content, aligned to state standards, to provide online access to specialized, rigorous, dual enrollment, credit recovery, and remedial courses.	X			

<b>Summary of Recommendations for the Local Education Agencies: AZ Long-Range Strategic Ed Tech Plan, 2009</b>	Already Implemented	Currently Implementing	Planning for Implementation	Not Implementing
Provide curriculum and resources that ensure personal safety for students in a digital world and policies that specify expectations of appropriate behavior and rules for students, parents, staff, and teachers.	<b>X</b>			

Describe the current level of technology integration into curriculum areas and the method of technology integration.

The district has in the past year taken steps towards integrating technology at all levels. We have joined the Pinal County iTV Distance Learning Consortium in order to give our students collaborative real time learning opportunities that address the global learning expected from Common Core Standards. We are attempting to expand the distance learning usage and have used it for several different grade levels.

The district's technology strengths still lie in the lower grades where we are able to access wireless internet. The K-6 grades are aligned and on target for the integration of technology into the curriculum. Teachers and students use computers and iPads to facilitate the district reading and math programs (Houghton Mifflin and Beyond Textbooks supplemented with Accelerated Reader and Accelerated Math). Diagnostic programs (Star Reader, Star Math, Galileo, and DIBELS) are incorporated at all levels along with many on-line interactive programs (Ten Marks, Ticket to Read, Reading Eggs, and IXL) that help facilitate parent involvement into the curriculum and give our RTI students the needed boost. SmartBoards are in every classroom along with student E-instruction response systems. In addition, we follow the STEM approach to learning at one of our elementary sites.

With restricted spending, our 7-12 grade schools use technology in more limited ways than our lower grades with more funding opportunities and as stated before, the wireless connections to facilitate this environment. Technology at the 7-12 grade level is reserved for classroom banks of computers, computer labs to help facilitate our RTI program and for research purposes and the creation of 21<sup>st</sup> century classrooms with SmartBoards, document cameras, and E-instruction student response systems. We have, in the last year established a district social networking site where students can access curriculum and teachers are available to give students help with their academics.

Technology integration is reflected in our teacher evaluation system so that it is expected at all levels. The new AZ Common Core Standards are pushing our students to be more independent learners with the ability to use technology for real world problem solving. The expectation of the state to ready ourselves for the new PARCC assessment is also something we are working on to benefit our students and teachers in making them ready and comfortable with the new environment being established for high stakes testing.

What is the current level of technology literacy and how do you measure **student** technology literacy?

Computer availability throughout the district for administrators, teachers, and support personnel is at a 1 to 1 ratio. Though the age of these computers varies greatly, the district has replaced many of the teacher computers to help facilitate the latest software in conjunction with their SmartBoards, DocuCams, and Mobis. A computer life cycle replacement plan has been developed and is currently being employed for these computers.

The current level of technology literacy for our students is developing into the full expectations of the state which is quoted as being *“the ability to responsibly use appropriate technology to communicate, solve problems, create products and access, manage, integrate, evaluate, and create information to improve learning in all subjects, to use information to improve learning in all subject areas and to acquire lifelong knowledge and skills for the 21st century.”* Our students use technology in most classes which requires them to use it responsibly to communicate, create products, complete research, and become more college and career ready students. We are steadily working towards the full expectations of the AZ Technology Standards and Common Core.

Our technology literacy is measured by student and teacher surveys which indicate that students have completed their own projects or end products with the aid of technology in most classes and have access to technology in their classrooms. Students at many levels complete formative tests on computers, use student response systems for various activities in their daily lessons (surveying, completing assignments, testing, etc.), utilize technology to create art, movies, and complete research.

How are you developing and using innovative strategies for delivering curriculum through the use of technology (consider items such as distance learning technologies, online learning, and other e-learning systems)?

Our district has in the 2012-13 school year become a member of the Pinal County iTV Consortium in which we now have our own distance learning unit which enable us to give students opportunities to connect globally with others, take classes that are beyond our district’s abilities, and go on virtual field trips. We are currently using technology online resources to engage our RTI students and give them the appropriate practice and learning experiences to improve their academics. In addition these online sources allow students to access the materials and practice from home further engaging parents in the learning experience. Our student response systems allow students to be more engaged in the classroom and collaborate and communicate in the classroom to solve real world problems and survey their peers on real world issues.

How are you using technology to promote increased parental involvement and student engagement?

Technology is used to connect teachers, students and parents on Facebook to get quicker feedback on classroom questions. Our school website allows the parents to have access to the latest information for the cafeteria menu, community schools after school programs, board

meetings, student activities, and more. Parents have access to many online resources used for RTI in our classrooms to help develop each student and involve parents in the process. Parents have access to student grades and formative and benchmark results via the internet.

How are you using technology to increase authentic learning, increased collaboration and communication skills, and problem-solving **by students**?

With the new use of iPads in the classrooms and the distance learning unit students are able to collaborate and communicate with others to solve problems in groups using the latest technology.

Additional **student learning** current realities--

Our 7-12 grade students struggle for access to technology that is required to become more engaged and ready for the 21 century expectations and to become competitive in the real world. Until we get wireless to this site we will continue to struggle to offer these students the technology expected for AZ Technology Standards, Common Core, and the PARCC. We currently have laptops available, but we would also need to purchase more laptops to facilitate the PARCC assessments.

### **STUDENT LEARNING NEEDS:**

After reflecting on your current realities and the Arizona Long-Range Strategic Educational Technology Plan, please include a bulleted list for any **student learning** items or issues that are needed.

- Need wireless connection at the 7-12 grade level to access more authentic learning opportunities
- Need funding for the purchasing of iPads and more laptops to help facilitate those authentic learning opportunities within the walls of the classrooms where there is limited electrical supply for PC units.
- Need more keyboarding classes
- Spreadsheet classes in the use of formulas, etc.



# LEADERSHIP:

## Long-Range Strategic Goals:

All leaders will:

- model, implement, and assess appropriate technology use at all levels of the teaching and learning process.
- have access to the appropriate tools and resources to guide instructional and administrative practice.
- implement a dynamic technology planning process that expands curricular and instructional opportunities to students.
- provide opportunities for sustained, relevant, timely and effective professional development

*Long Range Strategic Goals  
Transforming Education: Enabling Learning for All Arizona Students  
The Arizona Long-Range Strategic Educational Technology Plan, 2009*

# CURRENT REALITY:

Select your implementation level for each recommendation in the columns provided.

Summary of Recommendations for the Local Education Agencies: AZ Long-Range Strategic Ed Tech Plan, 2009	Already Implemented	Currently Implementing	Planning for Implementation	Not Implementing
Develop and implement a comprehensive Strategic Technology Plan, tied to the district's strategic plan and school improvement plans, that ensures the instructional and administrative use of technology at the classroom, library, campus, and district level.		X		
Adopt the <i>Consortium for School Networking's (CoSN) CTO Skills Framework</i> for the hiring and evaluation of Chief Technology Officers.		X		
Develop incentives for new and veteran educators to become technologically literate.			X	
Include community input into the planning and support for the integration of technology into teaching and learning.		X		
Coordinate the use of electronic data in district planning to support research-based decision-making focused on student success.	X			
Participate in collaboration with representatives from PreK-12, Higher Education, parents, businesses and community to share planning resources and services.		X		
Support and encourage leaders to attend and present at local/state/national educational technology conferences.			X	

List and describe the current uses of technology to support your administrators and their responsibilities (district, school-based, student achievement, and teacher effectiveness) in the chart below. (add additional rows as needed)

Technology Resource	Activity
Pearson Inform	Student data collection for RTI
Galileo for formative and benchmark assessments	Data collection
Teacher Evaluation Spreadsheets	Evaluate teachers for effectiveness
I-phones/Droids	Calendars, communication
Laptops, I pads, and PC	Creation of district presentations, state reports, and communicate with employees
AZ SAFE online system	Report discipline incidents
SAIS	Student information system

Describe how administrators promote and evaluate the effective use of technology by teachers.

Administrators evaluate teachers on the basis of the new Teacher Effectiveness Evaluation. Our evaluation is based on the InTASC standards which have embedded within it, a technology component that is expected to be seen within the classroom. Teachers are offered a technology and data coach to help them with their individual needs. They have the ability to set up appointments with these key individuals as needed. Based on our surveys completed annually our professional development time is set up to concentrate on technology and other needed areas to benefit teachers as leaders of the classroom.

Describe the roles site-based LEA administrators play in the types and quantity of technology that are available to their staff and students.

Administrators believe that technology is a necessary key in building authentic learning opportunities in the classroom. They therefore create opportunities for teachers to access the technology, budget to increase the technology software and hardware available, give them the needed development to implement it in their classrooms, and expect it on their evaluations.

Additional **leadership** current realities--

Administrators need more opportunities for technological training themselves so they can be leaders of the movement. It is a bit frustrating for leaders to have all these expectations upon them from the state when we are from a rural community with limited resources and not enough funding to meet all the expectations set forth by Common Core and the PARCC assessment.

## **LEADERSHIP NEEDS:**

After reflecting on your current realities and the Arizona Long-Range Strategic Educational Technology Plan, please include a bulleted list for any **leadership** items or issues that are needed.

- Training and support to create more time for learning opportunities for teachers to become more technologically comfortable.
- Funding to provide more computers and training on hardware to meet all the expectations of PARCC and the authentic learning opportunities in TIM.

# PREPARATION AND DEVELOPMENT OF EDUCATORS:

Just as leveraging technology can help us improve learning and assessment, the model of 21st century learning calls for using technology to help build the capacity of educators by enabling a shift to a model of connected teaching. In such a teaching model, teams of connected educators replace solo practitioners and classrooms are fully connected to provide educators with 24/7 access to data and analytic tools as well as to resources that help them act on the insights the data provide.

*Transforming American Education: Learning Powered by Technology  
National Educational Technology Plan (Draft), 2010*

## Long-Range Strategic Goals:

All educators will:

- complete their initial preparation with the pedagogy, practical knowledge and skills to use technology to enhance every student’s learning.
- have access to research-based professional development opportunities whenever and wherever they need.

*Long Range Strategic Goals  
Transforming Education: Enabling Learning for All Arizona Students  
The Arizona Long-Range Strategic Educational Technology Plan, 2009*

## CURRENT REALITY:

Select your implementation level for each recommendation in the columns provided.

Summary of Recommendations for the Local Education Agencies: AZ Long-Range Strategic Ed Tech Plan, 2009	Already Implemented	Currently Implementing	Planning for Implementation	Not Implementing
Prepare administrators and district professional development personnel to conduct consistent observations of classroom use of technology using a technology integration observation form to determine levels of technology integration and effective use of technology that incorporates this observation into all formal professional evaluation.		X		
Develop and maintain funding models and budgets that support participation in statewide, technology professional development opportunities for all teachers and administrators.		X		
Develop and maintain professional learning communities that use appropriate technology to support learning and reflection by instructional personnel.			X	
Develop and maintain partnerships with Higher Education to pilot new instructional strategies for integrating technology.			X	

<b>Summary of Recommendations for the Local Education Agencies: AZ Long-Range Strategic Ed Tech Plan, 2009</b>	Already Implemented	Currently Implementing	Planning for Implementation	Not Implementing
Utilize innovative strategies for anytime/anywhere delivery of ongoing professional development, including online and other distance learning models and digital content delivery services to meet the diverse and personal learning needs of all educators.		X		
Provide instructional coaches and mentors to support technology integration efforts to improve learning in core curriculum areas.		X		
Provide professional development on the impact of non-compliance with district policies regarding the use of technology and include compliance with these policies as a component of teacher evaluation and observation instruments.			X	
Use grants and, where possible, district funds to host and cosponsor regional and statewide technology symposia and training that promote the sharing of instructional strategies and techniques.				X
Work with parents and higher education to develop opportunities for parents to learn how technology can enhance their child's learning.			X	

**What are the methods used for identifying technology professional development needs for teachers, staff, and administrators?**

Surveys identify the needs for professional development in the district. Then we look to state and county resources to provide them. We cannot send all teachers and it is not in the budget to bring most contracted resources to our district so we usually use the Train the Trainer model and have a couple teachers go to the PD and come back and teach the method to the other teachers in our scheduled in-services. Teachers have the ability to identify and reflect upon their own needs and the school finds funding for them to participate in professional development if it is aligned to the needs of their students.

List and describe the technology professional development opportunities that are available to **teachers and staff** on the effective integration of technology into the curriculum in the chart below. (add additional rows as needed)

<b>PD Activity</b>	<b>Facilitator or Provider of PD</b>	<b>Frequency of PD Offered</b>
Galileo Formative Creation	Pinal County	As needed
Galileo Data Collection	On-site Data Coach	As needed and bimonthly
iPad Training	On-site Technology Coach	Twice a year and as needed
Student Response System Training	CCS Presentation Systems	When new units purchased and as needed
Mobi Training	CCS Presentation Systems	When new units purchased and as needed
SmartTable Training	CCS Presentation Systems	When new units purchased and as needed
IPad integration in the classroom	BER or others	When requested
SmartBoard Training	CCS Presentation Systems, Pinal County and others that teachers want to attend	Upon purchase, as needed or when requested

List and describe the technology professional development opportunities that are available to **administrators** on the effective use and evaluation of technology in the chart below. (add additional rows as needed)

<b>PD Activity</b>	<b>Facilitator or Provider of PD</b>	<b>Frequency of PD Offered</b>
Galileo Formative Creation	Pinal County	As needed
Galileo Data Collection	On-site Data Coach	As needed and bimonthly
IPad Training	On-site Technology Coach	Twice a year and as needed

Student Response System Training	CCS Presentation Systems	When new units purchased and as needed
Mobi Training	CCS Presentation Systems	When new units purchased and as needed
SmartTable Training	CCS Presentation Systems	When new units purchased and as needed
IPad integration in the classroom	BER or others	When requested
SmartBoard Training	CCS Presentation Systems, Pinal County and others that teachers want to attend	Upon purchase, as needed or when requested

What incentives are available to LEA teachers, staff, and administrators for participating in technology staff development?

Currently, there are no incentives available other than if you ask you shall receive. However, we are looking into providing incentives for those that are able and then willing to coach other teachers in integrating more in their classroom.

How do you measure the effectiveness of the technology professional development offered?

Effectiveness of the technology professional development is measured by surveys and the feedback offered from teachers after the PD is given. However, it has become clear that more follow up needs to be made and coaching needs to occur while the PD is fresh. Further effectiveness should be measured in the evaluation and be dependent upon PD provided within the year so teachers are held accountable for their learning opportunities and students actually benefit from the new information.

## **PREPARATION AND DEVELOPMENT OF EDUCATORS NEEDS:**

After reflecting on your current realities and the Arizona Long-Range Strategic Educational Technology Plan, please include a bulleted list for any **professional development** that is needed under each category.

- ***Teachers and Staff***

- Time for practice and coaching
- Training for Google Docs
- Follow up coaching
- Training on AZ Technology Standards and TIM to ensure that all parties understand the level of implementation expected
- Accountability in collecting yearly PD and evaluation of its implementation

- Paraprofessionals trained to help facilitate in the classroom
- Incentives to learn and apply technology

- ***Leadership and Administration***

- Training on AZ Technology Standards and TIM
- Better teacher/principal evaluations to gauge technology implementation and/or consistency across evaluators in identifying appropriate implementation
- Time to attend more trainings on technology
- Training on how to more effectively integrate technology and get buy-in into the use of technology in the classroom
- Funding to implement the technology expectations



# INFRASTRUCTURE:

An essential component of the 21st century learning model is a comprehensive infrastructure for learning that provides every student, educator, and level of our education system with the resources they need when and where they are needed. The underlying principle is that infrastructure includes people, processes, learning resources, policies, and sustainable models for continuous improvement in addition to broadband connectivity, servers, software, management systems, and administration tools. Building this infrastructure is a far-reaching project that will demand concerted and coordinated effort.

*Transforming American Education: Learning Powered by Technology  
National Educational Technology Plan (Draft), 2010*

## Long-Range Strategic Goals:

The goals for learners, leaders, and educators will be achieved through an infrastructure that provides:

- secure and reliable anytime/anywhere access to a variety of current and emerging technologies.
- just-in-time assistance to support the use of technology for administration, teaching and learning.
- policies and procedures that ensure equitable access to all users.

*Long Range Strategic Goals  
Transforming Education: Enabling Learning for All Arizona Students  
The Arizona Long-Range Strategic Educational Technology Plan, 2009*

# CURRENT REALITY:

Select your implementation level for each recommendation in the columns provided.

Summary of Recommendations for the Local Education Agencies: AZ Long-Range Strategic Ed Tech Plan, 2009	Already Implemented	Currently Implementing	Planning for Implementation	Not Implementing
Develop and implement new strategies and practices for the funding, purchase and support of technology infrastructure and services.		X		
Provide a 1:1 learning environment for 6th-12th grade students and at least a 3:1 ratio for students below 6th grade. (ETAC has avoided using “computer to student ratios” because other digital learning devices, i.e. net books or smart phones, might describe these ratios)			X	
Maintain an internal wide area network that provides connections from the district to each school and between schools of at least 100 Mbps per 1,000 students/staff within the next one to four years and at least 1 Gbps per 1,000 students/staff within the next five to seven years. (Adapted from <i>High-Speed Broadband Access for All Kids</i> )	X			
Provide and maintain an infrastructure for communications with parents and community members, including year-round anytime/anywhere access to school news, educational resources, and data.	X			
Utilize technologies that are environmentally safe and can be used to ensure the safety of students (i.e. surveillance and emergency warning systems).	X			

<b>Summary of Recommendations for the Local Education Agencies: AZ Long-Range Strategic Ed Tech Plan, 2009</b>	Already Implemented	Currently Implementing	Planning for Implementation	Not Implementing
Provide and maintain an infrastructure for online grading and assessment systems that are standards based and allow access to student performance data to students, parents, and appropriate district personnel.	X			
Develop strategies, resources, and best practices that facilitate anytime/anywhere access to digital learning resources and activities by all students within the district. This includes secure access to network resources and ensuring that critical technology applications and data can be recovered in a timely manner.			X	
Provide funding and release time for support staff from districts of common size, interests, and technologies to meet and share best practices in infrastructure support.			X	

Describe your network configuration (the amount and type of network connections to the Internet, to individual schools, and within each school) and utilization (the type of network or connectivity that is being used, network configuration, and the current level of utilization.).

Our current infrastructure is adequate for now, but will need to be upgraded. We have a 100Mbyte backbone at each school with Gig to specific rooms and the District Office. Schools are connected into a WAN with wireless or P-T-P T1 connections. This was made possible by SFB project, e-rate funding, and district funding. We have a dedicated T-1 line through which all schools access the Internet. This line is connected to a server that is running CIPA software that is used by all schools. We need to upgrade all the servers to newer networking software to take advantage of new technologies. As the network grows we will need to upgrade and replace older backbone components to achieve a stable and forward moving infrastructure. We need to get wireless to our 7-12 grade school so they can receive more technology appropriate learning opportunities.

Describe the current level of access to technology resources (computers, cell/smartphones, interactive whiteboards, student responders, digital cameras, and other technology):

- **Students have access**
  - Interactive whiteboards in all classrooms
  - Student responders
  - Digital cameras in some classes depending on the need
  - Mobis in some classes if the teachers asked for them and explained how they would use them in the class
  - Personal cell/smartphones that they can use for lessons in the classroom
  - SmartTables are available in SPED classrooms

- I pads are available for the elementary classrooms to check out and are available for centers in the SPED classrooms and PreK
- Laptop C.O.W.s for classrooms at all sites (high school stays in library where the only wireless access is available)
- iTV distance learning opportunities are available across the district in high school library

- Each **teacher** in the district has

- Computers
- SmartBoard bundled with projector and computers
- Student Responders
- Some have DocuCams
- Some have Mobis
- Some have laptops
- Some have Smart Tables
- Elementary teachers have access to IPad C.O.W.s
- Laptop mobile units
- Computer labs available to them at each site (high school has multiple labs-some laptops and others PC)

- **Administrators** have

- Smartphones
- Up to date computers

Indicate what role, if any, that E-Rate has played or will play in maintaining or expanding LEA infrastructure.

E-rate has helped our school district with basic maintenance, internet and phone connection, maintenance of network infrastructure and some wireless. We continue to need their support in all these areas with the addition of wireless at our 7-12 grade site. In order to meet the expectations of the state for high stakes testing (PARCC), improve technology integration to develop college and career ready students, meet the expectations of the AZ Common Core Standards and the AZ Technology Standards our Jr./Sr. High needs wireless connection for the whole school.

List and describe the technology infrastructure for department procedures in the chart below. (business needs, HR, district communication, transportation, state reporting requirements, etc.) (add additional rows as needed)

<b>Department/Service</b>	<b>Technology Infrastructure/System Used</b>
Business/Inventory/Purchasing/HR/Depts	Citrix
District Communication	Microsoft
Student Information System (Required for state reporting)	SAIS, AZ Safe
Transportation	Computers/Mason Lane/Citrix
Food Services	Meal Tracker Point of Service
Special Education	SeasWeb

List and describe staffing levels versus devices/infrastructure needing support in the chart below. (add additional rows as needed)

<b>Device/Infrastructure Component</b>	<b>Number of Devices</b>	<b>Number of Support Positions</b>
Networking	3	1
Servers/Systems (Email, SIS, Finance, etc.)	13	1
Workstations/Software	680/10	1
Other Devices (printers, projectors, document cameras, interactive white boards, etc.)	80	1

## INFRASTRUCTURE NEEDS:

After reflecting on your current realities and the Arizona Long-Range Strategic Educational Technology Plan, please include a bulleted list for any **infrastructure** that is needed under each category (Hardware, Software, and Staffing).

### • Hardware

- Wireless Connection for high school
- Mammoth Elementary computer lab updated
- Outlets at all sites for more computer connectivity
- Laptops instead of PCs due to breaker usage and outlets
- iPad to SmartBoard connectivity

### • Software

- Consistency across the district for common software (i.e. word documents)
- Google docs
- Keyboarding software
- Lessons and assessments that relate to the technology integration
- Digital Storytelling software

### • Staffing

- Available Technology Coach to go to the classrooms and help teachers integrate technology
- Paraprofessionals trained to help facilitate technology
- Technician to work on all technology systems over the summer so accessibility upon the first of the year is appropriate
- On site available technology specialist to work on and upload iPads at both sites
- Increased technology expertise support to staff/devices

Technology Plans: If you apply for Priority 2 Services through the E-rate program, you must submit this Needs Assessment to TechPlans@azed.gov as one part of your technology plan. The Arizona Department of Education (ADE) will review the technology plan for accuracy and compliance. **Detailed records of all submissions (and accompanying documents) must be retained by the school district or charter school and made available for review or audit upon request.**