

Technology Planning

Technology plans are completed online through ALEAT (Arizona Local Education Agency Tracker) in the Common Logon, <https://www.ade.az.gov/CommonLogon/logon.aspx>. For E-Rate Priority II, the Arizona Department of Education (ADE) will review the technology plan for accuracy and compliance and issue a 3-year approval letter. Refer to and follow the [Tech Plan Flowchart](#) to complete the process.

Detailed records of all submissions (and accompanying documents) must be retained by the school district or charter school and made available for review or E-Rate audit upon request.

TECHNOLOGY PLAN: NEEDS ASSESSMENT

School District/Charter School Name: **MESA UNIFIED SCHOOL DISTRICT #4**

CTDS: **70204000**

Entity ID: **142917**

Date Completed: **June 3, 2014**

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 as well as at http://www.azed.gov/wp-content/uploads/PDF/2009-2013_state_edtech_plan.pdf.

LEA INTRODUCTION:

Briefly introduce and describe your school district or charter school.

Mesa Public Schools is located in the East Valley of the Metropolitan Phoenix area. MPS is the largest school district in the State of Arizona and covers approximately 200 square miles. The District consists of 6 high schools, 10 junior high schools, 59 elementary schools, 8 choice schools and 4 success schools. Student enrollment is approximately 63,000. Mesa Public Schools also employs approximately 9,000 full and part time employees located in schools and various departments throughout Mesa, Chandler and Apache Junction.

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
Staff Technology Proficiency	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.	1
2009 Educational Technology Standard	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.	1
Classroom Integration of Technology	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.	2
Professional Development/	No professional development or instructional support on	Professional Development on the use of technology in the classroom is offered.	Professional Development is offered based on needs identified from Staff Technology Proficiency	2

Components	Developing (1 point)	Approaching (2 points)	Fully Integrated (3 points)	LEA Self- Assessment Score
Instructional Support	the use of technology is offered.	Instructional support for the effective use of technology is available for some teachers through instructional coaches or curriculum resources.	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.	
Availability of Technology	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, 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.	2
Technology Funding/ Technology Support	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.	2
Comprehensive LEA Technology Integration Status	Developing - total 6–9 points	Approaching - total 10–15 points	Fully Integrated - total 16–18 points	10

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
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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			
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.	X			

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

Mesa Public Schools believes that the effective use of and instruction in technology is necessary for student preparation and success in the evolving job market. MPS maintains several departments and programs that support technology training and integration initiatives throughout the district.

Career & Technical Education (CTE)

Mesa Public School's CTE department provides hands-on career and technical courses and programs of study that comprise academic, career, and technical content designed to prepare students to make successful transitions to post-secondary education and the workplace.

Educational Technology

The primary focus of the MPS Educational Technology department is to serve as a professional development entity, supporting teachers, staff and administrators with effective training and implementation strategies as they relate to the integration of technology into the curriculum. The Educational Technology department continually collaborates with district content area specialists to develop diverse course offerings that provide MPS teachers and administrators with skillsets that allow for the infusion of technology into curriculum (aligned with state and national standards). For a list of currently offered courses, please refer to the PD Activity Chart found in the Preparation & Development of Educators section of this document (page 17).

Assistive Technology

The Assistive Technology Department is available to provide individual consultation for students receiving special education services. This might include observation in the student's typical environment(s), consultations with other service providers, making specific recommendations for assistive technology supports, arranging access, development of customized AT interventions, and training students, staff, and parents.

Assistive Technology offers individual and group trainings on specific hardware and software, as well as general strategies for using assistive technology in the classroom. They also assist the special education Instructional Materials Center (IMC) in acquiring, tracking, and maintaining assistive technology for loan to students and teachers.

Web Services

MPS Web Services maintains the district website, employee and student email. Their mission is to support MPS employees in the use of web-based technology.

Information Systems

Information Systems provides technology services, training, support, computing and communication infrastructure, and innovation for a wide range of instructional and administrative programs.

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

Starting the summer of 2014, the MPS Career and Technical Education department will begin offering a Computer Essentials course (CB02) that will be mandatory for all seventh grade students district-wide. It is through this course that student literacy will be measured in our district's junior high schools. A *detailed description of this program is provided in the next section of this plan.*

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)?

The Mesa Distance Learning Program (MDLP) began offering Internet courses in 1999. It's individual learning and independent study K-12 program, overall, is the highest achieving distance learning program in the state. MDLP continuously offers innovative coursework such as the Personal Finance for Teens – a first of its kind in Arizona.

The MPS vClass learning management system is an internally developed and maintained Moodle implementation for the purpose of delivering online professional development opportunities to Mesa employees. Course offerings are currently being maintained within this system through our ELAD, Health Services, and Educational Technology departments. vClass is also being utilized as a content deliver tool for students enrolled in our CISCO networking program.

MPS offers a video teleconferencing classroom model for the delivery of Chinese III curriculum to high school students at five high schools. This system allows a single, highly qualified teacher to broadcast instruction to and interact with students at multiple sites throughout our district.

The MPS Educational Television department produces and maintains a growing, online library of "On-Demand" videos (<http://www.edtv99.org>) covering a topics that address student learning, parent communication, professional development concepts, etc.

MPS GradPoint Labs offer students opportunities to recover credits due to failure, audit or missing coursework. This computer-based, credit recovery program utilizes the GradPoint Learning System courseware program.

Through the MPS Library Resource department, students and teachers are provided universal access to a wide-range of online databases (EBSCO, Britannica Online, Facts On File, Culture Grams, ABC CLIO, and GALE GIC)

Starting the summer of 2014, the MPS Career and Technical Education department will begin offering a Computer Essentials course (CB02) that will be mandatory for all seventh grade students district-wide. This computer literacy course is designed to give every student the opportunity to develop essential computer skills needed for success in school, for use in their personal lives, and for a smooth transition into the world-of-work. Students will become cyber savvy by learning Internet safety skills as they gain a practical understanding of how to safely and responsibly take advantage of online resources. Students will gain a comprehensive understanding of composing documents, spreadsheets and presentations

through hands-on, real-world projects using Microsoft Word, Excel and PowerPoint. This course will also expose students to a variety of other technology resources so they may enhance their learning and increase their productivity in other academic areas. CBO2 will be offered both as a traditional Fall, Spring and Summer face to face course as well as online through the Mesa Distance Learning Program. A culminating performance assessment is offered as a challenge to those students who would like to show proficiency without instruction.

The Mesa Public Schools vAcademy is a collection of online courses developed to target specific audiences. The MPS vAcademy provides unique, individualized educational opportunities that empower students to achieve their highest potential. Current vAcademy offerings include:

MA10 (Accelerated 7th and 8th grade math)

MA10 is offered as an option in Grade 6 for high achieving elementary math students. Virtual MA10 allows students to remain on the elementary campus and participate in a virtual MA10 cohort at a scheduled class time, interacting in real time by computer, with a teacher and other students on other elementary campuses.

Cyber Savvy

Cyber Savvy is an online course for secondary students in MPS credit recovery programs. The Cyber Savvy course provides students with a practical understanding of how to safely and responsibly take advantage of online resources, including issues related to digital etiquette and ethics, copyright, cyberbullying, and online privacy and reputation. Students enrolled in Cyber Savvy engage in independent, self-paced learning with guidance and feedback from a teacher.

MPS provides digital, online resource access to parents and students in reading at grades K-6 through its adoption of the Harcourt Trophies reading series.

McGraw-Hill My Math was adopted by Mesa Public Schools to provide a math program that was written to meet Arizona's College and Career Ready Standards for mathematics in grades K-5. *My Math* has an online component that gives teachers and students access to the text as an eBook. Teachers also have the ability to plan and present from the online interface as well as manage and assign instruction, assess students, and access other resources. Students will be able to complete assignments and assessments through *My Math* online and access online resources to assist them in the math discovery process.

Big Ideas Math was adopted by Mesa Public Schools to provide a math program that was written to meet the Arizona College and Career Readiness Standards for mathematics in grades 6-8. *Big Ideas* has an online component that gives teachers and students access to the text as an eBook. Teachers also have the ability to present from the online interface through the Dynamic Classroom Toolkit. Student will be able to access online resources to assist them in the math discovery process.

The Mesa Public Schools Family Literacy programs offer classes to adults who have K-3 children enrolled in one of the following schools: Adams, Holmes, Jefferson, Keller, Lincoln, Longfellow, Porter, Redbird, Stevenson, and Whitman. Adults attend literacy instruction, parenting classes, and computer literacy classes Monday through Thursday at the school site.

MPS maintains a districtwide integrated point of sales system which allows sites to record student payments as they are received. This system is used with district and student activity funds. An integrated website component of this system allows parents to log into the District Parent Portal website to view their student's fees or fines, for the parents to purchase items available from the site, and to make ECA Tax Credit donations.

Mesa's internal web content management system, Architeck, utilizes robust language packing to provide on-demand translation of web content for multiple languages.

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

Parental Involvement

The MyMPS:Parent Portal Experience (<http://www.mpsaz.org/mymmps>) allows Mesa parents to access a wide-range of student information via a password protected interface: grades, course schedules, course history, attendance, health and emergency contact information, etc. Online course registration for secondary students can now be handled online through this system as well.

MPS utilizes the School Messenger solution to record, send and track targeted, time-sensitive voice, text and email communication to our parents and community. This service facilitates such communication both on an individual school and district-wide level.

The Architeck web content management system is an MPS developed tool allowing all school sites, departments and teachers to create and maintain a web presence. These individual sites facilitate greater student-teacher-parent communication through the use of online calendaring, subscription-based news, video and audio feeds, and document upload/download functionality.

Student Engagement

MPS Career and Technical Education (CTE) in conjunction with the MPS Guidance and Counseling department have developed a College and Career Readiness Planning System called "Navigator". This system is powered by Kuder and allows MPS students to develop the Education and Career Action Plan (ECAP) for personal success.

MPS supports the use of several online math enrichment tools. At the secondary level, Carnegie Math and ALEKS are supported at participating junior high and high schools. At the elementary level, all elementary students grades one through six are provided accounts with the Encyclopedia Britannica SmartMath service. These programs not only allow teachers to monitor student progress and customize the learning experience for each child, but as online tools, they extend the educational day into the home providing a platform for greater parent participation.

MPS Educational Technology and World Languages departments support a growing ELL/iPod initiative throughout the district. This program provides participating teachers of ELL students with a multiple "Instructional Listening Kits" (carrying case, iPod Shuffle, external speakers, and a Belkin Adapter). The participating teachers are trained in the use of the iPods, the iTunes application, and the Audacity program, enabling them to create audio content from trade books, vocabulary lists, etc. This content is

placed on the iPod and checked out to the students for listening and practice at home. Such an implementation has both the benefit of extending the educational day into the home as well as including parents in the learning and practice process.

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

Powered by Google Applications for Education, the MPSConnect Students initiative has been deployed across our secondary schools. Through this initiative MPS students are provided access to a district-managed email, calendaring and online document and storage (digital locker) services.

MPS uses student response systems throughout the district. Student response systems are small, handheld devices that allow students to respond to questions asked verbally, on paper or on screen and enables a teacher to instantly assess student's comprehension of a lesson. The software and hardware work together so that teachers can create and deliver course-relevant questions and standards. The system creates an interactive learning environment in any classroom.

As mentioned above, MPS offers a video teleconferencing classroom model for the delivery of Chinese III curriculum to high school students. This system allows a single, highly qualified teacher to broadcast instruction to and interact with students at multiple sites throughout our district. Such a learning environment naturally fosters student development of effective communication and problem-solving skills as learners must interact and collaborate via the integrated technology. Such technology also allows participating schools to take part in a myriad of virtual field trip opportunities and services. Authentic learning is made possible as students watch live, streaming video of both the places and people of study and have an opportunity to converse with field experts that would otherwise be unavailable to them without the facilitating technology.

Through the utilization of podcasting technologies integrated into the MPS Architeck web content management system, teachers and students throughout MPS have the ability to create multimedia podcasts that can be immediately posted to the web to either be viewed online or downloaded to a wide variety of mobile learning devices. Creating educational multimedia publications such as podcasts provides direct focus on communication and collaboration skills and is another opportunity to extend the educational day beyond the classroom.

The Hapara Dashboard for Google Drive is a web-based management tool for the Google productivity suite. This dashboard product is integrated with our district's SIS system and provides teachers the ability to manage courses, track engagement and view all student work conducted through the Google platform. This product is currently being implemented in four of the twelve innovation teams.

Additional **student learning** current realities--

Innovation Team Pilots

Mesa has launched a series of thirteen educational technology pilot initiatives in order to explore the transformation of education within our district and to bring our classrooms into the 21st Century. Each initiative has been designed to provide innovative educators with the instructional technology, training and support necessary to explore new ways of delivering curriculum while engaging students through the same technologies they will use in higher education and in the professional sector:

- **High Schools**
 - Dobson High School
 - One-to-one Chromebook environment within two World History classrooms
 - Mesa High School
 - One-to-one iPad initiative within seven participating classrooms to differentiate and personalize instruction in mathematics and science
 - Mountain View
 - One-to-one Windows netbook/tablet environment within four mathematics and science classrooms
 - Red Mountain High School
 - Eleven-member, interdisciplinary team utilizing Chromebooks in a one-to-one environment within each participating classroom
 - Skyline
 - One-to-one iPad initiative within four participating Biology classrooms
 - Westwood
 - One-to-one iPad initiative within three Geometry classrooms
- **Junior High Schools**
 - Fremont Junior High
 - Interdisciplinary cohort of seventh grade students for Science, Technology, Engineering, Art and Math (STEAM) in a one-to-one, Windows-based netbook environment
 - Kino Junior High
 - Eleven-member, Math and Science team utilizing Amplify tablets in a one-to-one environment within each participating classroom
 - Rhodes Junior High
 - Eleven-member, interdisciplinary team utilizing Chromebooks in a one-to-one learning environment within each participating classroom
- **Elementary Schools**
 - Lehi Elementary
 - One-to-one iPad environment within one elementary and one intermediate classroom
 - Madison Elementary
 - One-to-one Windows-based netbook environment across all intermediate classrooms
- **Choice Schools**
 - Summit Academy
 - Four-member, interdisciplinary International Baccalaureate program team utilizing Windows-based netbooks in a one-to-one learning environment within each participating classroom

Eisenhower School for Innovation (ECFI)

ECFI has a strong focus on core instruction in reading, writing, and mathematics, with an integration of science, social studies, and technology. The implementation of a one-to-one environment using iPads in conjunction with data-driven instruction is intended to provide an individualized approach to student learning. ECFI has a career and educational focus within its curriculum to allow students to be exposed to career pathways through electives.

Engineering is Elementary

Developed by the Museum of Science in Boston, Massachusetts, this program focuses on engineering practices and problem-solving skills to meet the needs and challenges facing society today — generating sufficient energy, preventing and treating disease, and maintaining supplies of fresh food and water. As part of our science curriculum, Engineering is Elementary meets Arizona's Academic Standards and Common Core Standards. Funded by a grant through the Boeing Corporation, this program has been expanded into multiple elementary schools throughout our district.

ADE Title I Blended Learning Grants

Four elementary schools within Mesa (Eisenhower School for Innovation, Longfellow Elementary, Lowell Elementary and Lehi Elementary) have been awarded a grant through the Arizona Department of Education participating) to operate a Title I Blended Learning program, focused on improving student achievement in Mathematics. The Eisenhower School for Innovation will implement the grant utilizing the Flex model via a 1:1 environment. The remaining three schools have chosen to implement a rotation station model with one of the stations dedicated to online learning.

Digital Photography

All film and photography courses offered at Mesa's secondary schools have been converted to the digital format.

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.

- MPS needs equitable access for staff, students and parents to the current technological resources available.
- MPS needs efficient and sustainable professional development for staff, students and parents on the effective implementation of the resources, paired with formal accountability, and a funding stream to continually integrate up-to-date hardware and software

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

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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
Teachscape (Focus, Reflect, Learn)	Online suite of classroom observation tools selected used to support the district's teacher evaluation system based upon the Danielson framework.
Online Assessment System	Districtwide administration of quarterly benchmarks and predictive assessments. <i>MPS is currently transitioning between platforms.</i>
School Messenger	Enhanced communication between schools and the community via phone, email and text messages.
Data Warehouse	Central repository for all staff and student academic achievement data that is used by administrators, department leaders, professional development staff, and teachers to make informed decisions about individualized strengths and weaknesses.
Synergy SIS	Student information system is used to collect demographic information, track student discipline and course data, schedule classes, and grade progress.
Synergy SE	Component of the student information system for Special Education students that is used to collect demographic information, track student IEP and evaluation data, manage discipline information, schedule classes, and grade progress.
Professional Learning Management System	Software that manages the district's professional learning course offerings, content, and participation database.
Follet Textbook/resource Inventory System & Destiny Library Management System	Database and software systems that supports the administrative requirement of receiving, tracking, storing, circulating, and disposing of the districts inventory of library materials and textbooks.
OnBase	Online PARF management and contract allocation software.
Applitrack Recruitment	Web-based employment application tracking and management software.

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

During the formal teacher evaluation process, site administrators in Mesa Public Schools evaluate each teacher to ensure that they are effectively using technology. School administrators also promote the effective use of technology in support of student achievement goals while providing feedback based on the numerous informal evaluations and walk-throughs that they perform.

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

The school administrators in the Mesa Unified School District exercise control over their school's capital budget, dual-enrollment monies and funds obtained through competitive grants. School principals can allocate resources toward technology purchases, provided these purchases are within the parameters set forth by the District's established hardware and software standards. If additional funding is available, the District also supports additional campus requests for capital funds to support the technology initiatives on their campus. The campus principals are responsible for their school improvement plans (Continuous School Improvement Plan) and the technology accountability that is imbedded within these plans. As a result, the principals often utilize other federal and state grant funds to support their technology initiatives.

Additional **leadership** current realities--

Teacher Device Initiative

Through the utilization of voter approved bond funds, it is the goal of Mesa Public Schools to provide a ultrabook hybrid device to every certificated teacher and administrator by the end of the 2014-15 fall semester. This device will run Windows 8.1 and would replace the current teacher desktop workstation as well as the teacher laptop (if present) within each classroom.

Each classroom will be provided with a docking station enabling the ultrabook to be connected to a full-sized monitor, mouse and keyboard. This configuration will provide for a more traditional experience as a desktop workstation, offering a powerful tool for lesson planning, the creation of presentations, and for the completion of other administrative classroom tasks.

The school's wireless infrastructure will allow the device to access online resources while a WiDi receiver attached to the projector will allow the device to broadcast both audio and video content from anywhere within the room. As a tablet, the device's digitized stylus and interactive surface will allow for the virtualization of the classroom whiteboard.

Outside the classroom, the ultrabook will provide educators access to vital data and resources while attending PLCs, paperless staff meetings, and professional learning coursework.

With this initiative, the device will be directly assigned to the teacher and will follow him or her throughout the district.

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.

MPS needs to better enhance and support instructional leadership by providing professional development opportunities that include:

- Continuous technology training for leaders
- Commitment to upgrading technology hardware and software with an eye on emerging technologies
- Ongoing funding, oversight and training to ensure district-wide uniformity

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.

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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.

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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			

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
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?

As new or updated applications and technologies emerge, professional development courses are designed and training materials produced to provide support as these programs are introduced into the district. Such training can take place in either large or small group format, online, as well as one-on-one where necessary. The classes and training materials are monitored and adjusted according to the needs of administrators, teachers and support staff throughout the district. Such classes are either offered through the Educational Technology Department, Assistive Technology or through the Administrative Training Department located in Information Systems (Synergy & Synergy SE Help Desks), depending upon their target audience. Examination of the SAI survey data, in instances where technology is discussed, is also a valuable tool in determining training needs.

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)

PD Activity	Facilitator or Provider of PD	Frequency of PD Offered
Get Smart with Architeck <i>This course provides MPS employees an opportunity to begin creating Smart Pages and provides an overview of many new features that are now available through recent updates to Architeck. Participants must have completed the Basic Architeck class.</i>	Educational Technology	Year- Round

<p>Architeck: Communicating through Newsletters</p> <p><i>This course will provide MPS employees an opportunity to receive advanced training in the use of newsletters in Architeck as a way to better communicate with students and parents. Focus will be placed upon the use of news feeds to increase classroom-home communication. Participants must have completed the Basic Architeck class and have an active Architeck website.</i></p>	Educational Technology	Year- Round
<p>Architeck: Communicating with Calendars</p> <p><i>This course will provide MPS employees an opportunity to receive advanced training in the use of calendars in Architeck as a way to better communicate with students and parents. Focus will be placed upon the use of calendars to increase classroom-home communication. Participants must have completed the Basic Architeck class and have an active Architeck website.</i></p>	Educational Technology	Year- Round
<p>Clicker Basics</p> <p><i>This course will provide teachers with training on how to use Clickers. Teachers will learn how to setup their own Clicker database, download and import files, create fast grades, engage Clicker lessons and interpret reports.</i></p>	Educational Technology	Year- Round
<p>Instructional Databases</p> <p><i>Teachers will learn what databases are available for instruction and research through Library Resources. They will learn the search options and resources available through each MPS database resource.</i></p>	Educational Technology	Year- Round
<p>Digital Citizenship: Using the Internet</p> <p><i>Learn the basics of becoming a more cyber savvy user of the Internet: How does the Internet work? What is a browser? How do you read a webpage? What are search engines? How can I choose valuable websites?</i></p>	Educational Technology	Year- Round
<p>Digital Citizenship: Evaluating Online Resources</p> <p><i>Cyber savvy people need to know search strategies, how to evaluate websites, and how to use digital citation resources. Learn how to choose online resources for instruction and how to teach these strategies to your students.</i></p>	Educational Technology	Year- Round

<p>Digital Citizenship: Social Networking and Digital Footprints <i>Explore how digital footprints affect you and your students. Learn how to enjoy the benefits of social networking while avoiding the pitfalls. Teach your students the skills they need to be cyber savvy digital citizens.</i></p>	Educational Technology	Year- Round
<p>Digital Citizenship: Safety <i>The Internet is a wonderful place when you know how to use it safely. Learn how to protect your personal information & computer, and avoid being a victim of cybercrime. Explore resources that teach students how to be safe online, act responsibly and handle cyberbullying.</i></p>	Educational Technology	Year- Round
<p>Digital Citizenship: Copyright There is a world of content that teachers want to use in their classroom and share with their students and the world, but how does a teacher know when and how they can use the content they want without running afoul of copyright law? Explore the basics of copyright law and fair use, how these principles apply to educators, and how to tap into the power of Creative Commons licensed media. Note: This course is a prerequisite for "Podcasting with Architeck".</p>	Educational Technology	Year- Round
<p>Google Presentations: An Overview with Tips & Tricks <i>Google Presentations is a powerful presentation maker similar to Microsoft PowerPoint and Apple's Keynote. The difference is in sharing, collaboration, and price. Special features like these will help students and teachers fulfill the requirements of the Common Core State Standards. Tools within Google Presentations give students and teachers ability to add images, videos, and do research all within Google Presentations.</i></p>	Educational Technology	Year- Round
<p>CCSS: Searching with Google <i>Maximize the potential of Google Search and locate relevant information with ease. Learn how Google Search can be utilized for efficient, effective, and focused searching as required by the CCSS.</i></p>	Educational Technology	Year- Round
<p>Google Drive Basics <i>Learn or review the basics of using Google Drive to back up, create, and share documents.</i></p>	Educational Technology	Year- Round
<p>MPSConnect Calendar Tips and Tricks <i>Become a "Google Power User" by learning some tips for Calendar. Learn how to get the most out of your calendar with the tips and tricks offered in this course.</i></p>	Educational Technology	Year- Round

<p>YouTube in the Classroom <i>Learn all about YouTube and maximizing its use in the classroom. Discover tips and tricks to easily locate relevant videos to use in the classroom.</i></p>	Educational Technology	Year- Round
<p>Google Spreadsheets: An Overview with Tips & Tricks <i>This course helps educators become more familiar and comfortable with the different settings and uses of Google Spreadsheets.</i></p>	Educational Technology	Year- Round
<p>MPSCoConnect Gmail Tips and Tricks <i>Become a "Google Power User" by learning some tips for Gmail. Learn some tips and tricks to get the most of your district email.</i></p>	Educational Technology	Year- Round
<p>Google Documents: An Overview with Tips & Tricks <i>This course helps educators become more familiar and comfortable with the different settings and uses of Google Documents.</i></p>	Educational Technology	Year- Round
<p>Hangouts for Connecting Classrooms & Professional Development <i>Google Hangouts is a free video chat service that enables both one-on-one and group video chats providing teachers the opportunity to communicate with other teachers and professionals for networking, professional development and classroom connections no matter where you are. In this session, you will learn how to schedule, start and join a hangout. You will also become familiar with and use some of the key features inside a hangout.</i></p>	Educational Technology	Year- Round
<p>Using Google+ as a Professional Networking Tool <i>Your MPSCoConnect Google+ account is a powerful social media tool that can be used to connect professionally with colleagues and other educational professionals around the country and world. In this session, you will activate your MPSCoConnect Google+ account, set up your profile, adjust your settings and become familiar with some of the basic features.</i></p>	Educational Technology	Year- Round
<p>Word Basics <i>This is the class that will get you started in the world of word processing! Learn how to customize the Word interface, how to use Word editing features such as changing fonts, manipulating paragraphs, modifying styles, using find and replace, and converting document to a PDF. A complete hands-on class for users new to Word.</i></p>	Educational Technology	Year- Round

<p>Working with Text in Word <i>Learn how to insert columns, page breaks, headers and footers, tables, tabs, text boxes, etc.</i></p>	Educational Technology	Year- Round
<p>Working with Objects in Word <i>Learn how to insert pictures, shapes, SmartArt, screenshots, hyperlinks, equations, symbols, watermark, page borders, etc.</i></p>	Educational Technology	Year- Round
<p>Excel Basics <i>This is the class that will get you started in the world of spreadsheets. This training is a basic Excel training which includes navigating through a worksheet, formatting and entering data in a worksheet, basic editing, saving and printing.</i></p>	Educational Technology	Year- Round
<p>Excel Formulas <i>Learn how to create formulas, work with cell references, evaluate formulas and protect data in a worksheet in Excel.</i></p>	Educational Technology	Year- Round
<p>Excel Functions <i>A function is a preset formula to quickly and easily make many useful calculations in Excel. Learn how to create a variety of functions, name ranges, and protect data in a worksheet in Excel.</i></p>	Educational Technology	Year- Round
<p>PowerPoint Basics <i>This is the class that will get you started in the world of PowerPoint. This training is a basic PowerPoint training which includes adding content, adding slides, choosing slide formats, choosing a theme, adding a background, inserting objects, and viewing the presentation.</i></p>	Educational Technology	Year- Round
<p>SMART Board Overview <i>Did you just get a SMART Board, or you just need a refresher? In this class you will learn about the hardware, as well as the software, including handwriting recognition, resizing objects, cloning, hyperlinking, locking and unlocking, grouping, floating toolbar actions, changing the hardware settings, and more.</i></p>	Educational Technology	Year- Round
<p>The SMART Notebook Toolbar <i>Do you know how to use all of the tools in the SMART Notebook, version 11.4, toolbar? In this workshop, you will learn how to do that, as well as customizing the tools, toolbar, and more!</i></p>	Educational Technology	Year- Round
<p>The SMART Notebook Lesson Activity Toolkit Activities <i>Use the templates in the SMART Board Activity Toolkit to create quick interactive activities that promote class participation. These templates are so handy, your students can use them to demonstrate application of their knowledge!</i></p>	Educational Technology	Year- Round

<p>SMART Notebook: Tips and Tricks 1 <i>Once you're pretty comfortable using a SMART Board, you might want to explore some of the tips and tricks. In this class you will learn how to view two pages at a time to illustrate text dependent questioning techniques, reveal answers in various ways, record sound to pictures, record lessons, remove an object's background, download pictures into SMART Notebook, use the page sorter, animate objects and more.</i></p>	Educational Technology	Year- Round
<p>Exploring SMART Board Lessons from the MPS EdTech Portal, SMART Exchange, and more <i>Where can you find SMART Board lessons, and how do you tweak them? Join us as we explore the possibilities.</i></p>	Educational Technology	Year- Round
<p>Getting to Know Internet Explorer and Google Chrome in Windows 8.1 Access to the World Wide Web has profoundly changed how people utilize computers, and the humble browser continues to be the primary tool for tapping into this Internet resource. Explore the basics of web browser software with a specific focus on the differences between Internet Explorer and Google Chrome. Learn how to leverage the unique capabilities of each browser and how to utilize each browser in desktop mode and in Modern mode in Windows 8.1.</p>	Educational Technology	Year- Round
<p>New Apps for Windows 8.1 <i>Windows 8.1 brings the wide-ranging compatibility of previous versions of Windows into the future with support for a brand new type application: Modern apps. Modern apps look and feel different than traditional desktop applications, but offer exciting advantages for Windows 8.1 users, particularly on touchscreen-enabled devices. Explore how to take advantage of Modern apps, how to choose between Modern apps and desktop apps when completing tasks, and the different ways to access and personalize your applications in Windows 8.1, updated with the latest user interface improvements of Windows 8.1 Update 1.</i></p>	Educational Technology	Year- Round
<p>Managing Multiple Displays and Devices in Windows 8.1 <i>Windows 8.1 makes it easier than ever to share what you see on your computer screen with multiple monitors and projectors. Explore how to connect your Windows 8.1-equipped computer to different displays, the advantages of cloning your desktop or extending your desktop, and how to be more efficient</i></p>	Educational Technology	Year- Round

<i>with your displays by snapping and splitting windows. Learn basic troubleshooting skills for working with your connected displays and devices, including projectors, document cameras, and SmartBoards.</i>		
Navigating Windows 8.1 by Touch, Mouse, Keyboard and Stylus <i>Windows 8.1 marks the most significant shift in the look and feel of Microsoft's operating system since the release of Windows XP. As the first version of Windows designed to be touch-friendly, Windows 8.1 includes a number of new interaction gestures and interface elements. Explore how to take advantage of the power of touch and as well as the traditional mouse and keyboard in Windows, updated with the latest user interface improvements of Windows 8.1 Update 1.</i>	Educational Technology	Year- Round
Personalizing Windows 8.1 <i>Make Windows 8.1 your own. Explore the options in Windows 8.1 to customize and personalize your Windows experience, from changing desktop backgrounds, to personalizing your Start screen, to changing the startup behavior of Windows. Even when you are working, there is no reason not to feel right at home.</i>	Educational Technology	Year- Round
Find Your Doc: File Explorer in Windows 8.1 <i>Sometimes it is easy to save a file to your desktop for quick access, but there is a whole world of drives, folders and libraries in Windows for organizing, backing up, and providing context to your files and media. The File Explorer is the tool for accessing this wondrous world. Learn how to use File Explorer and it's most powerful tools, create libraries to organize media by type across folders and drives, access the File Explorer in Modern apps, and take advantage of search to find any file.</i>	Educational Technology	Year- Round

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)

PD Activity	Facilitator or Provider of PD	Frequency of PD Offered
Online Assessments <i>Administrative training in the effective use and analysis of student data provided by the district's assessment system.</i>	MPS Research & Evaluation and Educational Technology	Year- Round

Data Warehouse <i>Administrative training in the effective use and analysis of student data provided by the data warehouse system.</i>	MPS Research & Evaluation	Year- Round
Synergy <i>Administrative training in the effective use of the Synergy Student Information System</i>	MPS Administrative Training Department (Synergy Help Desk)	Year- Round
Synergy SE <i>Administrative training in the effective use of the Synergy SE (Special Education) Student Information System</i>	MPS Administrative Training Department (Synergy Help Desk)	Year- Round
Synergy Grade Book <i>Administrative training in the effective use of the Synergy Online Grade Book system.</i>	MPS Educational Technology	Year- Round
Applitrack <i>Administrative training in the effective use of the Applitrack employment application tracking and management software.</i>	MPS Human Resources	Year- Round
Applitrack <i>Administrative training in the effective use of the OnBase PARF and contract allocation software.</i>	MPS Human Resources	Year- Round
Teachscape <i>Administrative training in the effective use of the Teachscape online evaluation system.</i>	MPS Educational Technology & MPS Professional Development	Year- Round
Onbase <i>Online PARF management and contract allocation software.</i>	Human Resources	Year-Round
Professional Learning Management System <i>Software that manages the district's professional learning course offerings, content, and participation database.</i>	Professional Development	Year-Round
School Messenger <i>Enhanced communication between schools and the community via phone, email and text messages.</i>	Community Relations & Information Systems	Year-Round

Google Collaborative Suite <i>Google Drive, Docs, Presentations, Spreadsheets, Hangouts, Google+, Calendars, and Mail</i>	Educational Technology & Web Services	Year-Round
Architek <i>Web Content Management System developed by Mesa Public Schools to meet the district's needs for providing easier access to more robust & relevant content on district and school websites.</i>	Educational Technology & Web services	Year-Round
Administrative Mobile Devices	Educational Technology	Year-Round

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

Recertification hours.

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

Surveys of participants regarding the effectiveness of training are an integrated component of the online system that MPS uses to manage all professional development course offerings. The impact the presented material will have on a participant’s job responsibilities and enhanced understanding of content are surveyed as well as the participant’s years of experience, presenter preparation, knowledge of content and suggestions for course improvement.

Success of course offerings is also measured by the work products associated with the tools being trained. For example, Architek is an MPS developed, web management system allowing schools, department and teachers to create and maintain a web presence for the purpose of expanding communication between the district and the community. The very presence and maintenance of an Architek website is in and of itself a measure of the effectiveness of the training. Online assessments and the data warehouse also have internal work products associated with their effective use that provide a metric for successful training.

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*

- MPS needs to move toward equitable, on-demand content delivery
- MPS needs to identify creative incentives for professional learning
- MPS needs a sustainable program of accountability for teacher implementation of skills learned in professional development coursework
- MPS needs a system by which teacher technological proficiency can be measured
- MPS needs ongoing training and support in the effective use and implementation of emerging technologies and strategies
- MPS needs on-site support for the integration of technology in instruction

• *Leadership and Administration*

- MPS needs a system by which administrative technological proficiency can be measured.
- MPS needs administrative training in the evaluation of teachers and their effective integration of technology in the classroom.
- MPS needs administrative training in the evaluation of teachers and their effective integration of technology in the classroom
- MPS administrators need ongoing training and support in the effective use and implementation of emerging technologies and strategies

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: <i>AZ Long-Range Strategic Ed Tech Plan, 2009</i>	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			

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
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			

NEW TECHNOLOGY READINESS FOR ONLINE ASSESSMENT

Verify that you have completed or updated your data in the Technology Readiness Tool, www.techreadiness.org by downloading a .csv file of your **Overall Readiness Indicators** report from the Technology Readiness Tool and uploading into ALEAT.

Completed/Updated by: David Sanders Date: 4/23/2014

Title: Director of Information Systems Overall Readiness Percentage: 90%

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.).

Elementary Schools currently have a 100Mb WAN connection, Jr. Highs have a 200Mb connection and the High Schools have a 1Gig connection to the District Office. The school LANs currently have a 100Mb-1000Mb backbone and devices connected to the LAN have 10/100/1000Mb connection. Wireless is currently installed in about 40 of the 83 schools sites and all should have wireless by August 1st, 2014. The current utilization of the Internet has increased from 200Mb to pushing 1gig. The Internet bandwidth is the process of being upgraded to 2-5Gig and should be in place by July 1st, 2014.

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

- **Students** have access – Mesa Unified School District has a 5:1 student to computer ratio with at least one computer in each classroom with Internet access connected to a Local Area Network and the Wide Area Network. The availability of technology for student use varies at each site. The elementary students have access to a lab for curriculum integration activities and then extended

time in the classrooms to use technology. At the junior high school and high schools, there are a variety of labs for some subject areas. Students also have computers available in media centers and classrooms for electronic card catalog stations, purchased reference databases and research on the Internet.

There are 12 Innovations teams throughout the district in which each participating teacher has a classroom set of mobile devices with wireless access to the Internet and network resources. Eisenhower Elementary School is a 1:1 iPad school.

The MyMPS:Student Portal Experience (<http://www.mpsaz.org/mymps>) allows Mesa students to access a wide-range of student information via a password protected interface: grades, course schedules, course history, attendance, health and emergency contact information, etc. Online course registration for secondary students can now be handled online through this system as well.

- **Each teacher in the district**

There is a 1:1 teacher to computer ratio. Every teacher in our district has access to a computer to perform his/her job duties. Every staff member in our district whose job duties require the use of a computer has access to a computer. Training on the web technologies and email is made available to all teachers and administrators. All certified and exempt employees can access email from home. Those same employees may receive a single copy of Microsoft Office for home use. If required, some employees may be given VPN access so they can connect with Mesa Public Schools network and services from home. Teachers have access to the Synergy Gradebook. (any time anywhere access)

Each teacher in the district will have a mobile device and projector by spring semester of the 2014-15 school year.

- **Administrators have**

There is a 1:1 administrator to computer ratio. Each administrator has access to a computer to perform his or her job duties. This allows access to a variety of administrative programs including our Synergy and Synergy SE student information, Online Professional Development, Contract Allocation, Travel Request, Substitute Services, and MPS Connect communication systems via desktop computer and an administrative device with 4G wireless access.

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

Mesa Public Schools has been applying for and receiving Priority 1 E-Rate funding since school year 1999-2000 that funds WAN and Internet connectivity. In school year 2008-2009 MPS first applied for E-Rate Priority 2 Internal Connections funding. The district did not receive funding in 2008-2009 due to the discount level which was ultimately funded by the SLD. MPS received funding for Priority 2 E-Rate for school year 2010-2011. E-Rate has funded 30 eligible schools for re-cabling and cabling for wireless access and network gear to support wireless.

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)

Department/Service	Technology Infrastructure/System Used
Business/Inventory/Purchasing/HR/Depts	Onbase (Contract allocations, Travel, PARFs) OBARS (Acctg./AP/PR/WH), Follett (Techbook), Kronos (Time Cards), eSchools (Sub-call), In- Touch (Bookstore/Comm-Ed)
District Communication	Google collaborative Suite (MPSCoconnect), Connect-Ed, Architeck, Stoneware and Cisco VPN. School Messenger is also used for mass communication to parents and staff.
Student Information System (required for state reporting)	Synergy (SAIS, ADA/ADM, Truancy, CTE, SPED Services and Needs, ELL, Free & Reduced)
Transportation	Zonar (Bus GPS Tracking and Pre- & Post- Inspection, Trapeze (Routing Software), RTA (Vehicle Maintenance), TRIPS (field trips), Mileage (Stud Transport mileage), Driver Certifications
Food Services	SNAP, MyLunchMoney.com
Special Education	Synergy SE
Title I	CAYAN (Online Supplemental Educational Services & CHOICE), ALEAT, ADE Connect Grants Management
Research & Evaluation	SPSS

Professional Development	eSchools (PD Tracking)
Guidance and Counseling	KUDER (ECAP)
Operations	TMA (Work orders), VPN (Ops and Vendors)
Security	AMER-X (Security Cameras), Rapid Responder
Human Resources	OBARS (HR, HQ, SDER), Onbase (PARFs), RockWest (Photo-ID)
Business/Inventory/Purchasing	OnBase (contract allocations, Travel, PARFs), OBARS (acctg. /AP/PR/WH), Follett (Textbook), KRONOS (Time Card), eSchools (Sub-call), In-Touch (Bookstore)

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

Device/Infrastructure Component	Number of Devices	Number of Support Positions
Networking	Switches = 1700 Routers =	Network Spec. = 2 Sr. Network Spec. = 2 Network Supervisor = 1
Servers/Systems (Email, SIS, Finance, etc.)	Physical = 75 Virtual = 50	System Support Analyst = 4
Workstations/Software	Workstations = 25697 Software = MS Office, Google, Office 365, MS Windows, Mocha, MS System Center	CRT = 14 Helpdesk = 5 Helpdesk Supervisor = 1
Other Devices (printers, projectors, document cameras, interactive white boards, etc.)	Projectors = Interactive White boards = Doc. Cameras =	Ed Tech Staff = 21
Copiers, Printers, Fax	Copiers = 450 Fax = 170 Printers = 3012	Copier Repair = 4 Printer Repair = 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

Mesa Public School's current wide area network consists of 101 sites connected via high bandwidth fiber. The district uses Qwest's MoE services as our metropolitan Ethernet service and will be switching to Cox MoE services July 1, 2014. Each elementary school has a 100 Meg Ethernet connection to the district's backbone. All junior high schools have 200 Meg Ethernet connections while all high schools have gigabit Ethernet connection to the backbone. All schools starting July 1st, 2014 will have a minimum 1 gigabit Ethernet connection to the backbone with the capability of upgrading to 10 gigabit. The district's internet connection is 1 gigabit Ethernet to Century Links and will be migrating to Cox services. Starting July 1st, 2014 the Internet bandwidth will be upgraded to 2 gigabit bandwidth with the capability of upgrading to 5 gigabit.

- Cabling – Add 3 drops per classroom to accommodate future wireless bandwidth needs.
- Switches – Install only PoE switches to provide increased port counts to support additional drops and equipment connectivity.
- Wireless – Install Robust Wireless campus wide in every MPS campus. Provide community wireless access using a Guest wireless at all MPS properties.
- VOIP – Install Voice over IP to replace existing aging telephone equipment.
- Video Telepresence – Increase video telepresence throughout the district for classroom and collaboration use.
- Hardware – Upgrade and/or new technology devices which support wireless connectivity as well as connectivity to 21st Century learning technologies
- Mobile Devices\Laptops – 1:1 device initiatives for teachers as well as for students.
- Additional Physical and Plant/Site Security Cameras and monitoring.
- Unified Communications - Radio, Cellular, PC and Phone interoperability

• Software

MPS needs to implement:

- Wireless Identity Service to assist with BYOD
- Network Monitoring System
- Copier\Printer Management System
- A Robust HelpDesk System
- Financial\Business System to replace aging OBARS system

MPS needs to implement a robust Learning Management system, which includes test banks, assessment data and curriculum resources.

MPS needs to investigate and determine the viability of online instructional materials that may replace textbooks in the classroom.

• Staffing

- MPS needs to expand the Educational Department to support the additional training needs and immediate availability required by teachers and staff at the sites.