FLAGSTAFF UNIFIED SCHOOL DISTRICT

TECHNOLOGY PLAN

JULY 1, 2013– JUNE 30, 2016

LEA PROFILE

LEA Profile	
LEA NAME: Flagstaff Unified School District	
CTDS:	03-02-01-000
NUMBER OF SCHOOLS IN LEA	15
E-RATE BILLED ENTITY NUMBER (if not applicable, indicate N/A)	143151

TECHNOLOGY PLAN CONTACT INFORMATION

Primary Technology Plan Contact Information

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TECHNOLOGY COMMITTEE

The FUSD District Technology Committee **meets monthly** on the first Tuesday of each month. Minutes are recorded and posted at: www.tinyurl.com/fusddtcminutes

FUSD District Technology Committee		
Member	**Title (if applicable)**	**Constituency Represented**
Shelley Kelch	LMS (Library Media Specialist)	Mt Elden Middle
Adria Curtin	Technology Teacher	Cromer Elem.
Carla Johnson	Technology Support	DeMiguel & Kinsey Elems.
Rosemary Groves	LMS	Sinagua Middle
Emily Connors	Teacher	Knoles Elem.
Heather Zeigler	Digital Literacy Specialist	Technology Dept.
Jannette Bressler	Teacher	Sechrist Elem.
Jean Dunham	LMS	Flagstaff High
Jennifer Parker	LMS	Coconino High
Jon Harmon	Teacher	Christensen New Start
Jeremy Schroeder	Teacher	Puente de Hozho
Laurie Jeffers	Teacher	Thomas Elem.
Mary Knight	Director of Technology	Technology Dept.
Ted Grudniewski	Asst. Director of Technology	Technical Services
Dean Shaddy	Technology Teacher	Marshall Elem.
Brad Kamradt	Tech. Integration Coordinator	Technology Dept.

TECHNOLOGY VISION & MISSION

Vision Statement

"Members of the FUSD Community will have equitable access to technology within the school setting. Technology will be integrated into administrative and curricular areas in order to improve management, student achievement and professional development opportunities. Effective and appropriate use of technology will result in significant improvements in the quality of our educational system and community."

Mission Statement

"Teachers, administrators, library media specialists and support personnel will work in concert to develop learning experiences that incorporate Common Core State Standards and are infused with technology."

ISTE (International Society for Tech. in Education) Conditions for Successful Technology Learning Environments

The FUSD District Technology Committee will utilize the *ISTE Essential Conditions for Successful Technology Learning Environments* to guide district technology initiatives.

1. Vision with support and proactive leadership from the educational system
2. Educators skilled in the use of technology for learning
3. Content standards and curriculum resources
4. Student centered approaches to learning
5. Assessment of the effectiveness of technology for learning
6. Access to contemporary technologies, software and telecommunications networks
7. Technical assistance for maintaining and using technology resources
8. Community partners who provide expertise, support, and real-life interactions
9. Ongoing financial support for sustained technology use
10. Policies and standards supporting new learning environments

TECHNOLOGY PLAN TERM

LEA Name:
Begins: JULY 1, 2013   End: JUNE 30, 2016

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

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

_____ Every "applicable school"[1] has complied with the CIPA requirements in subpart 4 of Part D of Title II of the ESEA.

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

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

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

Technology plans will be submitted online through a web based application in the Common Logon, https://www.ade.az.gov/CommonLogon/logon.aspx, "ALEAT" (Arizona Local Education Agency Tracker.)
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.

LEA APPROVAL & SIGNATURE

Date the plan was approved by the LEA governing board: 06/11/2013

OR

Date the plan will be submitted for board approval:

Your signature below certifies that detailed records will be retained and made available for audit upon request.

I certify that:
        The information in the technology plan is true to the best of my knowledge, and has been created and written in accordance with Enhancing Education Through Technology Act of 2001, 20 U.S.C. and the Federal Communications Commission's (FCC) Fifth Report and Order (FCC 04-190, released August 13, 2004) for those applying for E-rate.

_____Flagstaff Unified School District_____   _____03-02-01-000_____
School District/Charter School   District/Charter CTDS Number

_____ _____   _____
School District Superintendent/Charter School Principal (signature in blue ink)   Date

An original copy of this form must be sent to ADE by certified mail.

NEEDS ASSESSMENT

In support of student learning, Flagstaff Unified School District has been fortunate to make great strides in providing instructional technology devices.   Most recently the 2012 Technology Bond has provided funds to increase the number of devices available for students primarily in the form of iPads. Initial implementation has been focused on grades K-5 and provided an iPad cart per grade per elementary school. Funds are also available for infrastructure upgrades. The overall goal is to have the infrastructure, support, devices and professional development to allow for seamless integration of technology in all curricular areas.

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, 2010

"To be ready for college, workforce training, and life in a technological society, students need the ability to gather, comprehend, evaluate, synthesize, and report on information and ideas, to conduct original research in order to answer questions or solve problems, and to analyze and create a high volume and extensive range of print and nonprint texts in media forms old and new."

Common Core State Standards

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

Current level of technology integration and technology integration method--
With universally available technology in every classroom (laptop, document camera and projector), teachers are integrating technology for student learning on a variety of levels throughout all subject areas. Additionally, the presence of mobile devices (primarily in the form of iPads) is expanding yearly providing additional opportunities for technology integration. The broadest technology integration initiative, 2012-15, will be the K-12 implementation of iPads. The initial focus has been Reading in grades K-3, in support of the Arizona Move on When Reading requirement. Grades 4 & 5 will focus on Math in 2013-14. Secondary implementation will take place from 2013-15.

Teachers have the option of leveraging student personal devices (BYOD) for instruction by utilizing FUSD's PDWLAN (Personal Device Wireless Local Area Network). Currently, this resource is primarily being used on a limited basis at the secondary level, however, the network is available for grades K-12.

Digital *Literacy Skills--*
During SY 2011-12 and 2012-13, the Student Tool for Technology Literacy (ST2L) was used to assess middle-school student technology proficiency. Students achieving a score of 70% or above on the ST2L are considered to be proficient in the use of computer-based technology.

The ST2L uses interactive task-completion exercises and multiple-choice questions to assess student tech literacy for the following five indicators:
1. Operations and Concepts
2. Constructing and Demonstrating Knowledge
3. Communication and Collaboration
4. Independent Learning
5. Digital Citizenship

Middle-school students in 2011-12 were assessed during the second half of the year only. Students in 2012-13 were assessed throughout the year. 6th and 7th-grade students were assessed at the end of their required 9-week tech classes, 8th-grade students were assessed at the end of their semester-long elective technology courses, and Middle School Institute of Technology and Engineering (MIT-e) students, across all grade levels, were assessed at the end of the school year.

SY 2011-12 S2 only - Percentage of "Tech Proficient" Students

Grade	Sample Size	Overall	Indicator 1	Indicator 2	Indicator 3	Indicator 4	Indicator 5
6th	394	54%	63%	29%	49%	47%	75%
7th	408	53%	65%	34%	58%	54%	72%
8th	209	72%	74%	56%	74%	70%	81%

SY 2012-13 - Percentage of "Tech Proficient" Students

Grade	Sample Size	Overall	Indicator 1	Indicator 2	Indicator 3	Indicator 4	Indicator 5
6th	519	36%	49%	26%	39%	35%	60%
7th	484	68%	72&	48%	61%	59%	76%
8th	207	79%	78%	61%	75%	77%	81%

The ST2L will continue being used in the foreseeable future to assess student tech proficiency and to monitor our progress towards the District Improvement Plan goals of achieving a 50% rate of tech proficiency among FUSD's 6th-grade students and a 75% rate of tech proficiency among FUSD's 7th-grade students.

Delivering curriculum through the use of technology--

Northern Arizona Distance Learning (NADL)
FUSD utilizes online courses available through Mesa Distance Learning. 107 students took part in online courses during the 2012-2013 school year. This particular student population consists of students with social issues that make attending the traditional school environment challenging, preferred home school students (often religious reasons), expecting teens or teen parents, students on probation or in Teen Challenge (New Horizons Academy), and students with various health issues. Currently, Mesa Distance Learning offers over 85 7-12 grade courses online ranging from basic core classes like Algebra and Biology, Government and Economics to Mandarin Chinese, Service Learning, Multicultural Literature and Mythology. Mesa is always adding courses online, the most recent additions being Financial Concepts for Teens, Introduction to Information Technology, Guitar and Digital Photography.

Plato
Plato courseware is a standards-based online curriculum and provides courses in a wide range of core subjects and a limited number of electives. Plato is available primarily at FUSD's two high schools and Teenage Parent Program (TAPP) with plans to expand offerings to middle school students. Plato is currently used for credit recovery purposes.

Parental involvement through online and technology resources--
ParentVue is a module available through our student information system (Synergy) that allows parents to access student attendance and grades. In addition, Schoolwires, a content management system (CMS), is available for parents. Through the CMS, district and classroom level information is contributed and shared. FUSD administrators utilize our mass communication system, Blackboard Connect, to notify families of district and school events and information. Finally, every classroom is equipped with a phone to enable improved communications between parents and teachers/administrators.

Technology for increased authentic learning, increased collaboration and communication skills, and problem solving by students--
Instructional technology resources currently in place contribute to a digital learning environment in FUSD. Computer labs, mobile labs of laptops and iPads, teacher laptops, interactive whiteboards, projectors, document cameras, student response systems, and sufficient bandwidth for access to online resources are available to teachers, students and administrators. The combination of infusing these tools into core content along with digital literacy skills enables authentic experiences that are relevant to students' lives and allows them to be connected on global level.

Internet Safety Curriculum--
FUSD receives discounted services for telecommunications and Internet access through E-rate. As of July 1, 2012, recipients of E-rate funds must have an Internet Safety Policy and provide education on student safety in regards to use of the Internet, appropriate behavior while using, but not limited to, such things as social networking websites, online opportunities and chat rooms; and cyberbullying awareness and response.

To meet this requirement, FUSD students are provided with Internet safety education from the following two programs:
- Grades K-5 -- EasyTech
- Grades 6-12 -- Common Sense Media

FUSD Student Learning Needs--
- Support the Common Core State Standards implementation by providing all students with the opportunity to engage with digital tools and curriculum
- Cultivate authentic digital age learning experiences
- Improve student to computer ratio by continuing purchase of mobile devices such as iPads and expanding BYOD opportunities
- Investigate online learning opportunities
- Transition from print to digital curricular resources
- Provide continued professional development on effective technology integration methods
- Develop professional development on utilizing the teacher evaluation tool to assess levels and methods of technology integration
- Better utilize existing digital literacy curriculum for grades K-8 and define digital literacy expectations for grades 9-12
- Establish assessment methods for student digital literacy skills, K-12

Leadership

Advancing Digital Age Leadership
- Visionary Leadership
- Digital Age Culture
- Excellence in Professional Practice
- Systemic Improvement
- Digital Citizenship

ISTE NETS-A

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

Current uses of technology to support LEA administrators and their responsibilities (district, school-based, student achievement and teacher effectiveness)--

Technology Resource	Activity
Synergy Student Information System	Student enrollment, attendance, grades, classes, schedules, AIMS data, etc.
AzSAFE	Student discipline
Communication tools (e-mail, phone, Blackboard notification system, instant messenger, district/school website, Google docs	Communicate with staff, students, parents, community
TrueNorthLogic	Teacher effectiveness monitoring and professional development
Assessment tools (PCG, AIMSWeb, 4Sight, 21st CSA)	Student achievement data monitoring and analysis
Internet	Instructional resources, collaboration
Workstations, laptops, iPads, projectors, document cameras	Productivity, collaboration, staff development, administrator professional development, PLCs
Curriculum tools—Curriculum maps, EasyTech	Curriculm maps and materials, Technology Curriculum, Internet Safety

Ways administrators promote and evaluate the effective use of technology by teachers
- Clear expectations for technology integration
- Utilization of teacher evaluation tool, classroom observations, evaluation discussions, and monitoring of teacher professional development selections
- Technology usage promoted by supporting teacher technology needs and by arranging for technology professional development
- Support of technology peer coaches
- Support of iPad initiatives
- Hiring site-based technology specialists
- Promotion of the use of technology curriculum for digital literacy skills--e.g. Easy Tech
- Viewing student multimedia and technology projects
- Purchase and promotion of technology resources for teachers and classrooms
- Awareness of the FUSD student technology assessment results

Roles site-based LEA administrators play in the types and quantity of technology that are available to their staff and students--
FUSD administrators participate in site-based technology teams, district technology committee and the Bond Oversight Committee. Technology planning and purchase activities are conducted at all three levels-elementary, middle and high school.

Additional current realities for FUSD--
Teacher leaders exist within schools and administrators often rely on them for modeling and providing professional development and guidance

FUSD Leadership Needs
- Administrators' use of technology
    - Modeling relevant use and integration of technology by administrators
- Regular, active administrator participation in technology professional development and technology initiatives
- Evaluation of administrators on their own use of technology
- Professional development on administrative tools and programs—e.g., iPads, apps, data tools
- Technology Integration
    - Professional development for administrators so they can accurately evaluate teachers in the area of technology integration
    - Support of BYOD (Bring your own device)

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

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

Methods for identifying technology professional development--
District technology initiatives as well as non-technology related district initiatives drive technology professional development offerings in terms of both content and frequency. Classroom technologies (e.g., online resources, iPads/apps, document cameras), common core standards and technology integration, grade book, and the district content management system are district wide resources that require professional development. Similarly, technology professional development is also informed by the need to provide training and support for district goals and initiatives that are not directly tech related, such as PCG assessment system, Truenorthlogic, and online student assessments. Student achievement data gathered through programs such as EasyTech and ST2L is also utilized to develop professional development offerings to assist teachers in effective use of the digital literacy skills curriculum.

Technology professional development availability to faculty, staff, and administrators--
Professional development offerings are available in 3-hour workshops and 15-hour Professional Growth Academy (PGA) courses. Shorter trainings and workshops are also delivered on an as-needed basis at the district office and individual school sites. PD 360, online professional development, is available to high school staff. Other Technology Department online professional development options will continue to be investigated for possible creation and offering to district staff. In addition, technology professional development is delivered during grade level/department collaboration meetings, prep-hours, early-release, and after-school sessions. FUSD's established technology peer-coaching program trains coaches to assist collaborating teachers with lesson improvement and rigorous and relevant integration of technology.

Technology Professional Development incentives--
All technology professional development opportunities include recertification seat hours.
- Upon approval by the Professional Growth Committee (PGC) 3-hour workshops include 1/4 undergraduate credit on the FUSD salary scale.
- Approved PGA courses are worth 1 graduate salary-scale credit in addition to seat hours.
- Tech peer coaches are typically rewarded for their time and effort with stipends, equipment, and/or Career Ladder ICP points.
- 301 courses are paid at the hourly rate

Frequency of Technology Professional Development offerings--
The frequency of tech PD ranges from several offerings a month to several offerings a semester depending on the topic(s) and other ongoing activity and commitments throughout FUSD. Summer offerings, varying from 3 hours to one week in length, are also common. In general, trainings are made available to a variety of audiences. Some opportunities are limited to specific groups, such as grade book trainers (3-5 hours of train-the-trainer PD), technology peer coaches (4 full days during the summer and 3 full days during the school year), and tech peer coaches' collaborating teachers (a half-hour or more per week with their coaches).

Technology Professional Development providers--
Technology professional development is delivered by:
- Technology peer coaches--new and continuing
- Technology trainers--e.g. Grade book trainers
- FUSD's Technology Integration Coordinator
- Digital Literacy Specialist
- District and School level administrators
- Outside organizations—e.g., Arizona K12 Center staff

Measuring the effectiveness of Technology Professional Development--
The effectiveness of technology professional development is typically measured with a mix of periodic volunteer surveys and more frequent, required evaluations that every participant in an official training must complete to receive seat hours and/or credit. (These required evaluations are part of FUSD's district PD policy that governs non-tech-related PD offerings as well.)

FUSD Professional Development Needs--
Leadership & Administration
- Modeling of relevant use and integration of technology by administrators
- Regular, active administrator participation in technology professional development and tech initiatives
- More consistent communication of expectations related to the integration of technology
- Increased participation in voluntary, embedded, technology-related PD to ensure that technology integration expectations can be met
- Inclusion of technology integration concepts in new-hire qualifications and ongoing faculty and staff evaluations

Evaluation & Data Collection
- Walk-throughs to assess the quality and quantity of technology integration and to compare first-hand observation with self-reporting data
- Recording and subsequent, widespread dissemination of technology-inclusive model lessons and best practices

Curriculum
- Increased awareness and inclusion of Common Core state standards and (inter)national technology standards in teachers' planning and practice
- PD that continues to focus not just on skills and confidence, but also on meaningful technology integration through lesson planning and improvement

- Systematic inclusion of technology "common assessments" (electronic portfolios, student-driven projects, etc.) throughout the K-12 curriculum via integration with approved curriculum maps
- Increased teacher and student use of Easytech, with a PD emphasis on EasyTech as a customizable, holistic curriculum solution
- Promoting awareness of digital literacy skills, with a particular emphasis on digital citizenship (legal, ethical, and online safety concerns)
- Incorporating student owned devices in instruction

Programmatic Professional Development
- Remedial and "next steps" PD related to technology rollouts e.g., iPads and apps
- Alternative modes of PD -- including incentives such as seat hours and salary-scale credit for webinars, independent study, and "just-in-time" online trainings
- Regular inclusion of technology in grade level/department collaborative team conversations
- Coordinated PD planning that leverages the reach and work of existing non-tech groups (Career Ladder PFEs, Content Area Specialists, etc.) to increase technology integration awareness and literacy
- Continued development of and support to ensure the sustainability of technology peer coaching and technology trainer programs

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

The goals above 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--
Network configuration and utilization
The District office is connected to Metro Optical Ethernet (MOE) with a 1000Mbs fiber connection. Secondary schools each have a 200Mbs and elementary schools have a 100Mbs fiber connection to MOE. A 200Mbs connection to the Internet originates at the District office and is shared by all of the sites. The one exception to this scenario is Leupp School, which has a dedicated 10Mbs microwave connection to the district office. One or more

100Mbs CAT 5e network connections are available in every classroom throughout the district. Access to the Internet and local network resources are also available in each elementary and secondary via a district wide wireless network (802.11 b/g/n capable) allowing for greater mobility and access to network resources for both students and staff. Internet utilization runs anywhere from 25% to 50% on average with peaks of 70% to 80% during heavy usage.

Access to technology/technology replacement cycle--
- Students have access to one or more computer labs comprised of 30 or more computers in each of the schools.
- Increasingly, students have access to mobile devices as iPad carts are implemented throughout the district.
- One or more computers are available in each classroom or library.
- 100% of schools have one or more mobile carts comprised of 20 or more laptops/mobile devices available for student use.
- Every teacher in the district has a district issued laptop assigned to him or her.
- An iPad is provided to teachers as iPad carts are implemented at their grade level/department.
- Administrators have a district issued laptop and iPad assigned to them.
- Every classroom has a projector and document camera.
- Approximately 30% of classrooms have interactive whiteboards and all schools have at least one set of individual student response systems.
- Voice amplification systems are primarily installed in elementary classrooms with a limited number of systems available in middle school classrooms.

Teacher/Administrator laptops are currently planned to be refreshed in the 2015-16 school year (a 6 year replacement cycle). Estimated refresh for iPad will be on a 5-6 year cycle.

E-Rate & Infrastructure
Currently, FUSD relies on E-rate discounted services for Internet access to the district at large including Leupp School's microwave connection. Given the low district wide percentage, E-rate services have been requested in past years for individual schools in the 90% discount range for a very limited amount of internal connection devices (routers).

Technology infrastructure for department procedures

Dept/Service	Technology Infrastructure
Business/Inventory/Purchasing/HR/ Depts	IFAS (Integrated Financial Accounting System)
District Communication	VoIP phone system Blackboard Connect mass notification system Microsoft Communicator Instant Messaging Synergy (Student Information System)— ParentVUE, StudentVUE

	Exchange E-mail (outsourced to ETC)
Student Information System (required for state reporting)	Synergy (Student Information Record System)
Transportation	Transfinder routing software

Staffing levels vs. devices/infrastructure needing support

Device/Infrastructure Component	Number of devices	Number of Support Positions
Workstations/mobile devices Software/end user support	7300 desktop & mobile devices	4
Printers /AV—projectors/document cameras	500 printers 550 projectors 570 document cameras Variety of additional electronic devices	1
Network/WAN/LAN/VoIP	18 sites	1
Servers/network storage	42 servers	1
Internet security/filtering/antivirus/ Email account management/ Access control servers & software	Internet security/filtering/ anti-virus for all desktops/laptops/ 1200 email accounts/ Security systems (access and video) for 18 sites	1
Student Information System/ SAIS reporting	1 districtwide database	1
Finance System	1800 accounts	1

FUSD Infrastructure Needs
- Hardware
    - One to one student devices to provide individual access to instructional resources and assessment purposes
    - Purchase of iPad keyboards to enable use for PARCC assessment
    - Wireless access points to expand existing wireless network
    - Network audit to ensure that routers, switches and firewalls are capable of handling increased internet bandwidth needs

- Network switches to provide for expansion of VoIP and wireless network
- Additional network data storage for student and staff needs
- Continued virtualization of servers as needed to reduce our carbon footprint

- Software
  - Additional network monitoring and bandwidth management tools to ensure equitable and reliable internet access
  - Mobile device management software
  - Online conferencing/training tool

- Staffing
  - Site-based technology support positions
  - Dedicated network/lab administrator position to support school labs district wide