# Santa Clara Unified School District Educational Technology Plan 2017-2020



Version 9.0 February 17, 2017 DRAFT

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## INTRODUCTION

The rapidly changing access to and use of technology is changing the way we communicate and the way we learn. If used correctly, technology in the classroom can be a game changer for many students. It can be a powerful tool to transform teaching and learning. Technology today can facilitate the redesign of traditional tasks and allow for the creation of new and entirely different tasks, previously considered inconceivable.

As one of the major public school districts in Silicon Valley, Santa Clara Unified School District deeply recognizes the importance of technology and its associated challenges. Technology represents an essential tool for student learning and career preparedness, as well as being a vital engine driving efficient staff operations.

Guided by the 2015-2020 SCUSD Strategic Plan and LCAP Goals, the District will implement a technology strategy with culture and training at the center, supported by an infrastructure to support technology integration.

	SCUSD Strategic Plan and LCAP Alignment		
Strategic Plan	<b>Technology:</b> Develop classrooms, workplaces and technology proficient staff and operations, to prepare students to be successful, responsible members of our global society.		
	<b>Safety and School Climate:</b> Ensure that all students are educated in safe learning environments that support greater opportunities for student-teacher interaction, school connectedness, and the social well-being of each learner.		
LCAP	Goal 1:	All students will be educated in safe and clean, 21st century learning environments.	
	Goal 2:	All students will make measurable progress in mastering California Standards, and in graduating from high school, college and career ready.	
	Goal 3:	All students will participate in engaging learning environments that cultivate the 4 c's Communication, Collaboration, Creativity, and Critical Thinking and promote their social-emotional wellbeing.	

The Santa Clara Unified School District 2015-2020 Strategic and LCAP plans can be found online at <a href="http://www.santaclarausd.org">http://www.santaclarausd.org</a>.

The 2017-2020 Technology Plan was drafted using the following resources: SCUSD 2015-2020 Strategic Plan, SCUSD 2015-18 LCAP Goals and Actions, Future Ready Schools/National Education Technology Plan, and the International Society of Technology in Education (ISTE) SCUSD Educational Technology Plan 2017-2020

Standards for Teachers (Projected release date June 2017). Referenced resource links may be found in the appendix.

The initial writing committee consisted of the following participants:

- Janet Armstrong, Educational Technical Teacher on Special Assignment
- David Brum, LAN/Internet Network Administration
- Bonnie Billings, Director of Educational Technology
- Patti Douglas, Senior Application Support Specialist
- Leanna Goldenberg, Educational Technical Teacher on Special Assignment
- Elizabeth Gordon-Stoll, Coordinator of Assessment
- Teri Morrow PhD, Hughes Elementary Principal
- Mark Matsumoto, Assessment/Data Technician
- Jack Riviere, Educational Technical Teacher on Special Assignment
- Carlos Segura, Database Administrator
- Alicia Vazquez, Educational Technical Teacher on Special Assignment
- Joseph Zeligs, Director of Information Technology

The draft was then reviewed by the following groups: all site and district administrators, district content leadership teams, the educational services team, and the information technology department. After review and comments/edits from the above groups, the plan was posted on the district website for review and direct comment by the public. Comments were considered before a final edit. The plan was then taken to the Board of Education for approval. This plan remains a working document and to be revisited and revised annually.

#### **Duration**

The start date will be July 1, 2017 and will end June 30, 2020.

#### Stakeholders

Position	Name
Superintendent	Dr. Stan Rose
Local Board Members	Board of Education
District Administrators	Education Services Team
Director, Educational Technology & Learning Resources	Bonnie Billings
Director, Information Technology Group	Joseph Zeligs

Site Administrators	Site Administrators
School Community	Student, Parents
Classroom Teachers/Ed. Tech. TOSA, Teacher On Special Assignment	Technology Liaisons
Classroom Teachers	Education Technology Teacher Leaders

## Outline of the Plan

The technology plan is divided into the following three sections:

- Teaching, Learning, and Assessment
- Professional Learning
- Infrastructure and Digital Tools

## TEACHING, LEARNING AND ASSESSMENT

Improving teaching, enhancing learning, and assessing student outcomes with technology.

The 2016 Future Ready Learning; National Education Technology Plan, NETP, refers to the Digital Use Divide as;

"Traditionally the digital divide referred to the gap between students that had access to the internet and devices at school and home and those who did not. ... However a digital use divide separates many students who use technology in ways that transform their learning from those that use the tools to complete the same activities but now with electronic device (e.g. digital worksheets, on-line multiple-choice tests)"

The SCUSD Technology Plan intent is to promote and support teachers and students to use technology in ways that can improve learning- to accelerate and scale up adoption of effective approaches and technologies. In LCAP goal 3, action item 2 it is stated as;

Continue to provide professional development for certificated and classified staff in engagement strategies, restorative practices, inclusion, and growth mindset that promote communication, collaboration, creativity and critical thinking in the classroom learning environment.

The following section is broken into three parts and is aligned to the 4 C's mentioned in the LCAP goal 3;

**Teaching**: understand how students learn; design and implement engaging lessons; strategies and instructional practices to deliver content

**Learning** refers to: student centered activities, exploration, revision, with the goal of providing equity and accessibility.

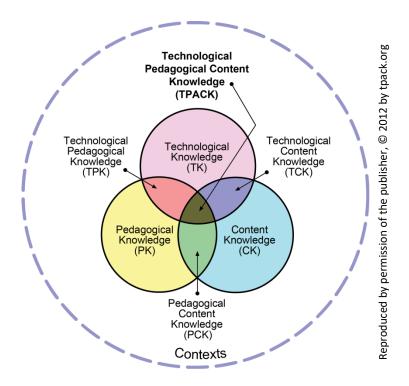
**Assessment** refers to: how we know what students have learned – formative and summative

The concept of equity and accessibility applies to accommodating the individual needs of students, such as English language learners, economically disadvantaged, and embedded assistance such as text-to-speech, audio and digital text formats to differentiate instruction. The TPACK and SAMR models will help educators, both leaders and teachers, infuse technology such that equity and accessibility are in the forefront.

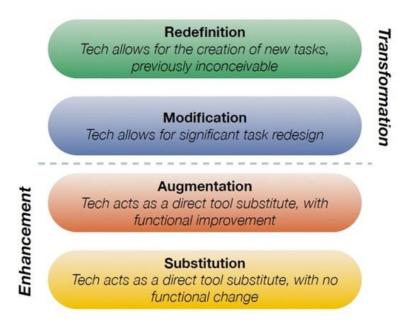
Technological Pedagogical Content Knowledge (TPACK) is model representing the overlapping teacher "knowledge" circles required to effectively integrate technology in the classroom. The three major circles of the diagram include:

- Content Knowledge knowledge about the subject matter. This includes knowledge of concepts, theories, ideas, organizational frameworks, practices and approaches toward developing such knowledge.
- Pedagogical Knowledge knowledge and understanding of how students learn, general classroom management skills, lesson planning, and student assessment.

 Technology Knowledge - knowledge about technology, tools and resources that support student acquisition of content knowledge in conjunction with the teacher's pedagogical knowledge.



The SAMR Model (Substitution, Augmentation, Modification, and Redefinition) is a model designed to help educators infuse technology into teaching and learning. Popularized by Dr. Ruben Puentedura, the model supports and enables teachers to design, develop, and infuse digital learning experiences that utilize technology.



In addition to these models, the International Society for Technology in Education (ISTE) Standards for Teachers offers a framework for enriching professional practice and becoming a community of teacher learners. The ISTE Standards for Students is a helpful guide for student acquisition of the technology and information literacy skills needed for college and career readiness. The ISTE web link that has both sets of standards are included in the appendix.

## Goal 1: Teaching

Teachers will implement pedagogically sound, authentic learning experiences, which incorporate the use of contemporary and/or emerging technologies to teach the Content Standards. The TPACK and SAMR Models may be used by teachers to self-monitor their growth in incorporating technology-embedded lessons.

- Year 1: 60% of teachers and staff will attend technology professional development that is focused on designing learning activities that promote the 4 C's using technology that is aligned to the California standards.
- Year 2: 80% of teachers and staff will attend technology professional development that is focused on designing learning activities that promote the 4 C's using technology that is aligned to the California standards.
- Year 3: 100% of teachers and staff will attend technology professional development that is
  focused on designing learning activities that promote the 4 C's using technology that is
  aligned to the California standards.

Activity	
1. Provide technology professional development opportunities for staff to stay up to date on the latest best practices in educational technology (i.e. Google Summit, CUE conference, district sponsored professional development, summer institute)	<ul> <li>Timeline: 2017-20</li> <li>Person Responsible: Directors of Curriculum &amp; Instruction, Director of Educational Media, Director of Information Technology. Teachers on Special Assignment.</li> <li>Monitoring &amp; Evaluation: Professional Development attendance &amp; surveys.</li> </ul>
2. Continue to investigate and implement more STEAM and Project Based Learning programs, activities and opportunities.	<ul> <li>Evaluation Instrument: Surveys</li> <li>Timeline: 2017-20</li> <li>Person Responsible: Directors of Curriculum &amp; Instruction, Director of Educational Media, Director of Information Technology. Teachers on Special Assignment.</li> <li>Monitoring &amp; Evaluation: Professional Development attendance &amp; surveys.</li> <li>Evaluation Instrument: Surveys</li> </ul>

## **Goal 2: Learning**

All learners will have engaging and empowering technology-embedded learning experiences that prepare them to be active, creative, knowledgeable and ethical participants in our globally connected society.

- Year 1: 60% of students will complete a learning activity that promoted the 4 C's using technology that are also aligned to the California standards.
- Year 2: 80% of students will complete a learning activity that promoted the 4 C's using technology that are also aligned to the California standards.

  Year 3: 100% of students will complete a learning activity that promoted the 4 C's using technology that are also aligned to the California standards.

Activity	
<ol> <li>Students apply existing knowledge to generate new ideas, products, or</li> </ol>	• Timeline: Completed twice per year by December and June.
processes.	Person Responsible: Student
	Monitoring & Evaluation: Certification

	requirement checked off by classroom teacher. (A bank of resources is created and maintained by the team of TOSA's, Teacher on Special Assignment and can be found on the district website.)  • Evaluation Instrument: Self-report by teacher with a copy of student work.
2. Students interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media.	<ul> <li>Timeline: Completed by June.</li> <li>Person Responsible: Student</li> <li>Monitoring &amp; Evaluation: Certification requirement checked off by classroom teacher.</li> <li>Evaluation Instrument: Self-report by teacher with a copy of student work.</li> </ul>
3. Students apply digital tools to locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.	<ul> <li>Timeline: Completed by June.</li> <li>Person Responsible: Student</li> <li>Monitoring &amp; Evaluation: Certification requirement checked off by classroom teacher.</li> <li>Evaluation Instrument: Self-report by teacher with a copy of their presentation given to an audience.</li> </ul>
4. Students use critical thinking skills to plan and conduct research using appropriate digital tools and resources.	<ul> <li>Timeline: Complete by December and June.</li> <li>Person Responsible: Student</li> <li>Monitoring &amp; Evaluation: Certification requirement checked off by classroom teacher.</li> <li>Evaluation Instrument: Self-report by teacher with a copy of their lesson plan on a digital citizenship topic.</li> </ul>

- 5. Students demonstrate personal responsibility for learning and/or exhibit leadership for digital citizenship by completing a task or project as defined by their teacher.
- Timeline: Complete by June.
- Person Responsible: Student
- Monitoring & Evaluation: Certification requirement checked off by classroom teacher.
- Evaluation Instrument: Self-report by teacher with a copy of their lesson plan on a digital citizenship topic.

#### Goal 3: Assessment

Teachers will utilize technology, including data and assessment systems to balance multiple assessment approaches and analyze results for action. For assessment and data analysis purposes, teachers will use technology to ensure that students have multiple ways in which they can demonstrate learning. Additionally, teachers, students, families, educators, and policymakers will access through technology timely and appropriate information to support individual learners and to make good decisions to strengthen teaching and learning and educational systems overall.

- Year 1: 80% of teachers including counselors will utilize the district's major data and assessment systems. Additionally, at least 85% of school administrators and leadership teams/PLC's will report they "regularly used data" from one of the district's major systems in decision-making meetings for students or programs.
- Year 2: 85% of teachers including counselors will utilize the district's major data and assessment systems. Additionally, at least 90% of administrators and school leadership teams/PLC's will report they "regularly used data" from one of the district's major systems in decision-making meetings for students or programs.
- Year 3: 90% of teachers including counselors will utilize the district's major data and assessment systems. Additionally, at least 95% of administrators and school leadership teams/PLC's will they "regularly used data" from one of the district's major systems in decision-making meetings for students or programs.

Act	tivity	
1.	Acquire the latest hardware and most efficient interfaces to expand the use of ongoing, formative, and embedded assessments that are most accessible, least disruptive, and most useful for improving student learning.	<ul> <li>Timeline: Provide at least two meetings with C&amp;I and with IT to discuss new technologies. Complete by June</li> <li>Person Responsible: Coordinator of Assessment</li> <li>Monitoring &amp; Evaluation: Minutes of the four meetings; two with C&amp;I and two with IT.</li> <li>Evaluation Instrument: Training evaluation survey taken by participants of session.</li> </ul>
2.	Assessment data is made available directly to students with the aim that students play a larger role in choosing their own learning pathways.	<ul> <li>Timeline: 2018- 2019</li> <li>Person Responsible: Coordinator of Assessment</li> <li>Monitoring &amp; Evaluation: Lesson plan provided for teacher use.</li> <li>Evaluation Instrument: Training evaluation survey taken by participants of session.</li> </ul>
3.	All technology/interfaces will meet interoperability standards.	<ul> <li>Timeline: Ongoing</li> <li>Person Responsible: Coordinator of Assessment</li> <li>Monitoring &amp; Evaluation: Evidence of equipment purchased obtained from the business purchasing department.</li> <li>Evaluation Instrument: Asset Tag report from the business purchasing department.</li> </ul>

## PROFESSIONAL DEVELOPMENT

The explosion of Internet access and affordability of wired and wireless devices has initiated a revolution in how teachers teach, the ways in which students learn, and the methods used to assess student progress. Now, more than ever, teachers must become fluent users of technologies available for education and be skilled in embedding technology in the teaching and learning in their classroom. Keeping teachers current with best practices will require ongoing professional development, using a variety of platforms.

**District Professional Development** days provides choice sessions on a variety of technology tools and how to apply them in the classroom.

**The Technology Fellowship** program pairs teachers with an Educational Technology TOSA. Teachers in the program will develop a professional development plan, receive support from a selected Educational Technology TOSA, and then use their knowledge and skills to support technology integration within their school site.

**Collaboration Platforms** will be developed so that teachers can collaborate with their peers in their schools or district wide. The intent is to support collaborative teams so that they may develop transformational projects to share with the district.

## **Goal 1: District Professional Development**

Provide district professional development choice sessions in best practices that demonstrate the use of contemporary and/or emerging technologies to support student mastery of California Standards and preparation for college and career.

- Year 1: 60% of teachers will complete a professional development session focused on at least one application of technology learning.
- Year 2: 80% of teachers will complete a professional development session focused on at least one application of technology learning.
- Year 3: 100% of teachers will complete a professional development session focused on at least one application of technology learning.

Activity	
Teachers facilitate one lesson per semester that engages students in	Timeline: Completed by December and June of each semester.
creativity.	Person Responsible: Teacher
	Monitoring & Evaluation: by

		observation and by survey.
assessmen	lesign one formative t per year in which students tools to demonstrate their e.	<ul> <li>Timeline: Completed by June.</li> <li>Person Responsible: Teacher</li> <li>Monitoring &amp; Evaluation: by observation and survey.</li> </ul>
curate a va tools to co creative ar learning e others. Di Internatio Education	model how they are able to ariety of resources using digital construct knowledge, produce rtifacts and make meaningful experiences for themselves and gital age work is defined in the nal Society for Technology in standards. (ISTE Standards er found in the appendix)	<ul> <li>Timeline: Completed by June.</li> <li>Person Responsible: Teacher</li> <li>Monitoring &amp; Evaluation: by observation and by survey.</li> </ul>
4. Teachers r citizenship	nodel best practices of digital o.	<ul> <li>Timeline: Complete by December and June.</li> <li>Person Responsible: Teacher</li> <li>Monitoring &amp; Evaluation: by observation and by survey.</li> </ul>

#### Goal 2. Educational Technology Fellowship

Educational Technology Fellows will participate in a yearlong commitment that will focus on learning, teaching leading, and reflecting. The fellowship will build teachers' confidence in using educational technology and increase both teachers' and students' skills.

- Year 1: 10-15 teachers will participate in Educational Technology Fellowship to integrate technology into the classroom.
- Year 2: 20-30 teachers will participate in Educational Technology Fellowship to integrate technology into the classroom.
- Year 3: 40-60 teachers will participate in Educational Technology Fellowship to integrate technology into the classroom.

Activity	
1. Summer SCUSD Bootcamp for fellows.	Timeline: Completed by July or August.

	<ul> <li>Person Responsible: Director of Educational Media and Ed. Tech. TOSA's</li> <li>Monitoring &amp; Evaluation: Survey from participants after the boot camp.</li> <li>Evaluation Instrument: Survey.</li> </ul>
2. Advanced follow-up trainings 3-4 times per year.	<ul> <li>Timeline: Completed by end of school year. Training twice during semester 1 and twice during semester 2.</li> <li>Person Responsible: Director of Educational Media and Ed. Tech. TOSA's</li> <li>Monitoring &amp; Evaluation: Survey from participants after each of the 4 trainings.</li> <li>Evaluation Instrument: Survey.</li> </ul>
3. Collaborate with an Ed Tech TOSA's.	<ul> <li>Timeline: Quarterly</li> <li>Person Responsible: Fellow and Ed. Tech. TOSA's</li> <li>Monitoring &amp; Evaluation: observation of Lessons and/or video's of best practices.</li> <li>Evaluation Instrument: Reflection of Lesson plans and video exemplars.</li> </ul>

#### Goal 3. Collaboration Platform

Provide educators a platform where they can collaborate with their peers in their schools or district wide. Helping to become a learning community that collaborates and learns from each other. Teachers need to have continuous, just-in-time professional development, mentors and informal training.

- Year 1: 60% of teachers will use the educational technology resources provided.
- Year 2: 80% of teachers will use the educational technology resources provided.
- Year 3: 100% of teachers will use the educational technology resources provided.

## Activity

- Develop a website with a curation of resources and how-to screencasts and/or YouTube videos that exemplify best practices infusing technology into the classroom.
- Timeline: Ongoing
- Person Responsible: Director of Educational Media and Ed. Tech. TOSA's
- Monitoring & Evaluation: The website and the contents.
- Evaluation Instrument: Evaluate the usage using Google analytics.

## **INFRASTRUCTURE AND DIGITAL TOOLS**

In order to create an infrastructure that will support teaching, learning, and assessment, a solid foundation of hardware, staff, and services must be provided by the Santa Clara Unified School District Information of Technology Group, ITG, department. This foundation consists of "layers", many of which are already in place, but need to be expanded to support many more devices and applications.

The layers, in summary, are not only the physical network, switches, wireless access points, etc. (which are already essentially in place), but also the staff, tools, and quality of support needed to enable teachers to focus on learning versus technical glitches.

ITG department layers, each with a distinct function, that need to be expanded and developed include:

- The internal facing "NOC" or network operating center, the operational heart of all District technology functions, insures availability and continuity of services.
- The district staff facing "TAC" or technical assistance center, the ITG team that directly supports users of technical services, not only dispenses "help desk" and "break fix" responses, but also uses metrics to proactively improve quality of service delivery.

New ITG job functions that are not yet defined by existing HR position descriptions will need to be developed and filled including:

- Network Operating Center Manager Oversight of all hardware, software, hosted systems, staff, vendors and tools that work in concert creating the foundation for district supported technology services.
- Technical Writer/Librarian- Development and curation of the technical knowledge repository needed to effectively provide and improve quality of Tier One support.
- Audio Visual/Cabling Technician- to service the growing number and complexity of interactive teaching tools, cameras, projectors, and amplified sound systems.

Existing ITG technical positions that will have to be staffed at higher levels in order to support extensive device deployments (e.g. one-to-one) are:

- Additional tier 1 help desk staff to rapidly respond to requests from staff so classroom activities proceed with minimal interruption.
- Additional computer technicians to deploy, maintain and repair technological devices.

## Goal 1

NOC, Network Operating Center, has the purpose to maintain reliability and high availability of all technical infrastructure.

#### Benchmarks

Year 1: Hire NOC ManagerYear 2: Active MonitoringYear 3: Change Management

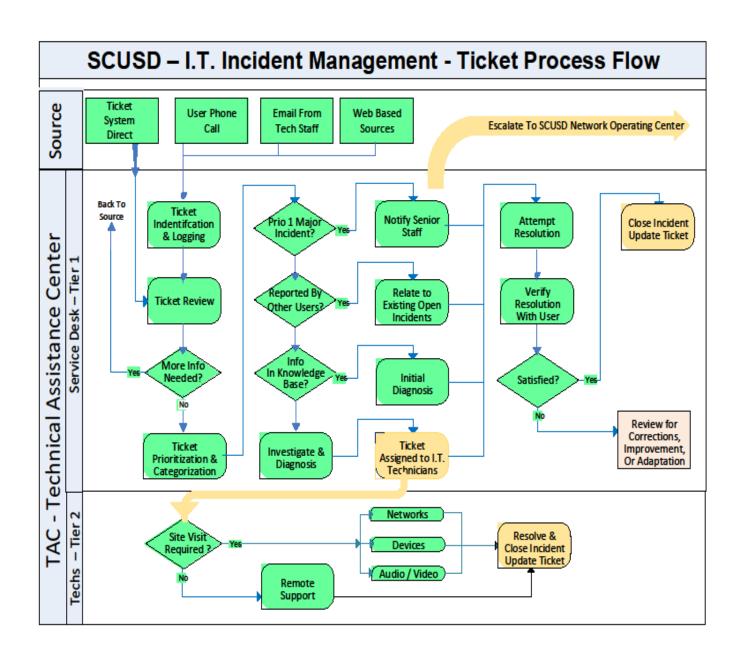
Activity	
1. Hire the NOC Manager and establish "heads up dashboards" to monitor health of all production systems, automate delivery and escalation of status alerts.	<ul> <li>Timeline: School year 2017-18</li> <li>Person Responsible: Director of IT</li> <li>Monitoring &amp; Evaluation: Uptime statistics, presence of new dashboards.</li> </ul>
Improve security and monitoring of student data for appropriate use and privacy compliance.	<ul> <li>Timeline: School year 2017-18</li> <li>Person Responsible: NOC Manager</li> <li>Monitoring &amp; Evaluation: Availability of tracking and alerts regarding appropriate use for teachers and school admin.</li> </ul>
<ol> <li>Establish distinct development, test and production environments with versioning and deployment tools to manage change control.</li> </ol>	<ul> <li>Timeline: School year 2018-19</li> <li>Person Responsible: NOC Manager</li> <li>Monitoring &amp; Evaluation: Ruckus Wireless Access Point metrics.</li> </ul>
4. Expansion of capacities and upgrade of systems to support additional requirements of new school campuses.	<ul> <li>Timeline: School year 2019-20</li> <li>Person Responsible: Director of IT</li> <li>Monitoring &amp; Evaluation: Required additions up and running.</li> </ul>

#### Goal 2

The purpose of the Technical Assistance Center, TAC, is to provide optimal assistance to all users of technical resources. Optimize service delivery, and escalate priority issues to higher Tier support.

- Year 1: Hire Audio Video/Cable Technician, Technical Writer/Librarian
- Year 2: Establish Knowledge Base, Intranet Renovation
- Year 3: Problem (vs. Incident) resolution based on ITIL metrics

Activity	
1. Expand the IT staff Audio/Visual/Cable Technician, Technical Writer/Librarian.	<ul> <li>Timeline: School year 2017-18</li> <li>Person Responsible: Director of IT</li> <li>Monitoring &amp; Evaluation: New positions created and filled.</li> </ul>
2. Formal Service Delivery Methodology (e.g. ITIL) with knowledge base, Intranet Renovation (See diagram below.)	<ul> <li>Timeline: School year 2017-18</li> <li>Person Responsible: Tier 2 Managers</li> <li>Monitoring &amp; Evaluation: Helpdesk Ticket reports and metrics analysis.</li> </ul>
3. Single Sign-On, Personalized Dashboards, How to Docs & Training staff to optimize technical resources/ just in time learning in collaboration with the C&I department.	<ul> <li>Timeline: School year 2018-19</li> <li>Person Responsible: Director of IT &amp; Director of Ed. Media</li> <li>Monitoring &amp; Evaluation: Staff post training surveys.</li> </ul>



#### Goal 3

One-to-one student computing is a goal to assure that each enrolled student has an electronic device to access the Intranet, digital course materials and digital textbooks. One-to-one computing offers the benefits of equal access, standardization, easy upgrades, simple networking and the ability to monitor student progress and online behavior.

The infrastructure needed to support the vision of one-to-one computing requires substantial institutional investment. In addition to the initial cost of purchasing hundreds or thousands of electronic devices, there are very substantial ongoing costs, including implementation, training, software licensing, monitoring, security, upgrades and maintenance. Many students are likely to own and use one or more electronic devices in addition to the school-issued electronic device, raising the question of whether 1:1 is redundant or wasteful. The intent is to assure equity for all students by closing the digital use divide as described in the introduction of the Teaching, Learning, and Assessment section.

However a digital use divide separates many students who use technology in ways that transform their learning from those that use the tools to complete the same activities but now with electronic device (e.g. digital worksheets, on-line multiple-choice tests)"

- Year 1: Chromebooks for Teachers. Full Carts for Fellows
- Year 2: Phased One-to-One Rollouts
- Year 3: Adjustments

Activ	ity	
1.	Maintain SCUSD networks and devices in order to deliver Electronic instructional materials/ textbooks/supplement resources/apps. Searching for an LMS or creating a platform using existing district tools.	<ul> <li>Timeline: School year 2017-18</li> <li>Person Responsible: Director of IT</li> <li>Monitoring &amp; Evaluation: Evidence of a platform</li> <li>Evaluation Instrument: Platform diagnostic tools</li> </ul>
2.	Maintaining the SCUSD network access compliance outside the school domain so that student devices at home are supported with the District provided devices & home bandwidth, especially for the SED students.	<ul> <li>Timeline: School year 2017-18</li> <li>Person Responsible: Director of IT</li> <li>Monitoring &amp; Evaluation: Diagnostic tools</li> <li>Evaluation Instrument: usage reports from the diagnostic tools.</li> </ul>
3.	Increased ITG staff and mass provisioning of large volumes of student devices. Coordinating device support including loaners, and repair-	<ul> <li>Timeline: School year 2018-19</li> <li>Person Responsible: Director of IT &amp; Director of Learning &amp; Media Resources</li> </ul>

exchange. (Note the 1-1 roll out plan will be forth-coming. The budget for purchase of devices was approved March 9, 2017. Director of IT & Director of Learning & Media Resources will co-plan the roll out plan in coordination with a sub-committee of principals, teachers, and staff members. 2017-18 = \$3,000,000 and 2018-19= \$3,000,000)	<ul> <li>Monitoring &amp; Evaluation: Staff lists and asset tag reports.</li> <li>Evaluation Instrument: Diagnostic tools, asset tag report.</li> </ul>
4. Preparation for new schools, network, phone, surveillance, classroom devices, support.	<ul> <li>Timeline: School year 2019-20</li> <li>Person Responsible: Director of IT</li> <li>Monitoring &amp; Evaluation: Minutes from meetings</li> <li>Evaluation Instrument: diagnostic tools, asset tag reports, minutes from meetings.</li> </ul>

## **SCUSD Stairway to Educational Technology** 3,000 Active Chromebooks 2,000 Thin Client Workstations 3,500 Laptops & Desktops Multi-Year Life Cycle Refresh Expanded I.T. Staff Future: One:To:One 15,000+ Devices: Computers, Chromebooks, Printers, Projectors External District TAC: Technical Assistance Center: HelpDesk, Tickets NOC: Network Operating Center, Monitoring, DevOps Internal I.T. Dept. Facing In-House Servers: SIS, Thin Clients, Surveillance, Etc. Network Layer: Cisco Switches, Routers, Access Points Physical Layer: Copper, Optical Fiber, Structured Cabling

## **APPENDIX**

#### **Referenced Links:**

SCUSD Strategic Plan; santaclarausd.org

SCUSD LCAP; santaclarausd.org

ISTE Standards; iste.org

Future Ready Schools Framework; futurereadyschools.org

#### **Existing Hardware:**

- 60 instances of virtualized servers housed in secure District Office data center
- 1 Gigabit ISP connection to SCCOE filtered through Palo Alto Networks Firewall
- 10 Gigabit Wide Area Network Joining all District schools running on private fiber leased from Silicon Valley Power
- Cisco Router and Switch Fabric in all MDF and IDFs subnetted into separate VOIP and data network segments
- 500+ Ruckus Wireless Access Points (currently being increased)
- 3,500 PC compatible Desktop and Laptops in classroom and administrative offices
- 2,000 PC compatible Thin Client (primarily in student labs) devices
- 3,000 Active Chromebooks compatible with Google Apps for Education (a.k.a. G-Suite)
- Smartboards
- Interactive Projectors with Audio Uplift Mic
- Classroom Projectors
- Printers
- Various Scanners, Cameras, and other Desktop Peripherals

#### **Existing Electronic Learning Resources:**

- Electronic resources & electronic textbooks of adopted core curriculum (K-12, all content areas)
- Aha! Math (K-3, Mathematics)
- ALEKS (3-12, Mathematics)
- ST Math (K-5, Mathematics)
- Khan Academy (3-12, Mathematics)
- Read 180 (6-12, Reading)
- Reading A-Z, RAZ-Kids, Vocabulary A-Z, Writing A-Z (K-5, Language Arts)
- Common Sense Media Curriculum (K-12, Digital Citizenship and Safety)
- Naviance (7-12) Career and College Readiness
- Office Suite (K-12, Productivity)
- Google Apps for Education (K-12, Productivity)
- Type To Learn 4 (K-5, Keyboarding)

- MicroType Pro (6-12, Keyboarding)
- Rosetta Stone (K-12, EL Support; 6-12 Spanish)
- Horizon Library System (K-12, Library catalog)
- Grolier Online (K-5, Research)
- EBSCO Database (6-12, Research)
- Adobe Creative Suite (7-12, Multimedia)
- Footsteps-2-Brillance (F2B) (TK 2 Literacy)
- Newsela (k-12 news resources with a variety of reading levels)
- MOSA MAK (6-12 resource for interactive science projects)

