

2017-2020 Technology Plan

Schertz-Cibolo-Universal City ISD



Technology Plan Committee

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Technology Standards

Standards support effective and efficient operations and equity across campuses. Standards have been established for technology in SCUC ISD. Maintaining standards for classroom, professional and infrastructure technology allows us to maximize our technology investment and build staff capacity. Considerations for both software and hardware standards include functionality, adaptability to our current infrastructure, customer support, consistency across platforms and staff capacity to support the equipment.

Classroom Technology

All classrooms are equipped with a teacher laptop and docking station, projection and Elementary and Intermediate classrooms are equipped with document camera capability, and three student devices per classroom.

Elementary and Intermediate Student Device Standards			
Grades PK-2 Classrooms	Tablets with touch screens	Grades 3-4 Classrooms	Laptops
Grades 5-6 Classrooms	Laptops		
<p>All Elementary campuses have an iPad cart.</p> <p>All Elementary and Intermediate campuses have one lab designated specifically for Technology Applications instruction. They may also have:</p> <ul style="list-style-type: none"> • Additional labs • iPad carts • Laptop carts • Chromebook carts <p>Some campuses support bring your own device.</p>			
Secondary Student Device Standards			
<p>Junior High and High School campuses have both stationary and mobile labs available to students, and support bring your own device. Mobile labs and other devices for check out may include laptops, iPads or Chromebooks.</p> <p>All campuses support bring your own device.</p>			

Average student to device ratio:

Elementary	2:1
Intermediate	2:1
Junior High	3:1
High School	2:1

Professional and Staff Devices

Device standards for professional staff were established based on feedback from teachers and administrators as an outcome of our 2015 Visioning Day. All professional staff are issued laptops, and paraprofessional office staff have desktop computers.

Staff Device Standards	
Office staff	Microcomputers
Teachers	Laptops with touch screens
Administrators	Laptops, non-touch screen

Software Standards

Standards have been established for operating systems, productivity, communication and rostering.

Software Standards	
Operating Systems	<ul style="list-style-type: none"> • Microsoft Windows 8 (developing strategy for migration to Windows 10) • Mac High Sierra v. X • iOS v. 11 • Chrome OS v. 64
Staff and students	Microsoft Office
Staff and High School Students	Office 365 Outlook Mail
Business/Student Information System	ITCCS
Rostering	OneRoster

A software approval process is in place that includes approval from technology, curriculum and/or the appropriate department for new software purchases.

Goal 1:

Provide digital resources to enable teachers to design dynamic learning environments that support student engagement and advance student achievement (P1)

Objective 1.1:

Provide all learners with access to relevant digital resources for individualized instruction and enhanced learning.

Strategies	Status	Timeline	Person(s) responsible	Evidence
1.1.1	Conduct a digital resource inventory by campus	Summer 2018	Phillip Ryan Jonathan Rowe	KACE report
1.1.2	Coordinate digital resources inventory with curriculum audit	Spring 2018	Dr. Karla Burkholder Dr. Toni Wood	Approved software list
1.1.3	Implement the DECIDE process for evaluation, selection, implementation and support of digital resources for teaching and learning.	Complete	Full implementation begins for the year 2017-18 school year	Submitted requests via Eduphoria
1.1.4	Conduct annual review of digital resources for effectiveness.	Completed for 2018-2019 budget cycle	Annually	Instructional Technology Curriculum Coordinators
1.1.6	Expand the BYOD initiative.	Jr Highs began implementation of BYOD 2016-17 school year. Available at Jordan, Schlather and Wilder on limited basis and full implementation scheduled for 2017-2018 school year; elementary implementation will be scheduled at principal's request.	Spring 2020	Technology Department Campus Administrators
1.1.7	Provide equitable access to computing devices across the district.	Classroom technology standards have been established for all levels. PreK-2 iPads Grades 3-6 laptops Grades 7-12 stationary and mobile labs	ongoing	Dr. Karla Burkholder Candee Mills Jonathan Rowe Steve Barnwell

1.1.8	Collaborate with professional staff to ensure that all learners have opportunities to build and maintain digital portfolios to track academic progress and growth.	Instructional Technology Coordinators are working with ELAR Coordinators to prepare for the writing pilot for the 2018-2019 school year.	2018-2019	Instructional Technology and Curriculum Coordinators	Student portfolios
1.1.9	Provide a learning management system for the integration of digital resources and activities to enable learning beyond the school walls.		Cancelled	Dr. Karla Burkholder Michelle Chae Dr. Toni Wood Instructional Technology Curriculum Coordinators	
1.1.10	Provide a single sign on portal for access to digital resources.	Complete	Fall 2017	Dr. Karla Burkholder Phillip Ryan Jonathan Rowe Steve Barnwell	PO Usage reports
1.1.11	Develop and execute a student email strategy	Email for HS students is in place	Spring 2017	Technology Department Campus Administrators	Student email accounts
1.1.12	Conduct action research on the use of interactivity in the classroom		Cancelled	Instructional Technology	
1.1.13	Replace technology tools and devices according to replacement cycles established in the EPP.		ongoing	Dr. Karla Burkholder	EPP; POs

Objective 1.2:

Model, coach and provide teachers with instructional strategies and best practices for integrating technology into teaching and learning.

Strategies	Status	Timeline	Person(s) responsible	Evidence
1.2.1 Collaborate with Student and Academic Services staff to integrate technology across grade levels and content areas.	LIT in progress	ongoing	Instructional Technology Curriculum Staff	Google site with Tech & T-TESS, Tech Tips, resources; increased requests for time with ITS; curriculum documents; instructional model
1.2.2 Meet regularly with grade level teams and departments to assist teachers in integrating technology into teaching and learning.	Collaborating with campus administration to meet the needs of teachers and campuses	ongoing	Instructional Technology	Training scheduled on campuses Training schedule
1.2.3 Support teachers in the classroom through coaching, model teaching and co-teaching as they integrate technology.	Meeting with campuses regularly to support staff. LIT Academy will build capacity within the district.	ongoing	Instructional Technology	Campus visits
1.2.4 Provide formal and just-in-time professional development for teachers and staff.	Providing monthly Lunch & Learns; face-to-face PD before school, during school and after school hours.	ongoing	Instructional Technology	PD records Tech Tip Tuesdays Professional development videos available in Office 365
1.2.5 Hire additional instructional personnel.	Requested two IT staff for 2018-2019 school year.	on hold	Dr. Karla Burkholder Candee Mills	

Objective 1.3:

Develop a comprehensive ongoing digital citizenship and student data privacy curriculum for students, staff and community.

Strategies	Status	Timeline	Person(s) responsible	Evidence	
1.3.1	Maintain digital citizenship curriculum for each school level (elementary intermediate junior high & high school).	Currently in process of building a bank of resources.	ongoing	Instructional Technology	Elementary & Intermediate lab lessons; Jr. High librarians digital citizenship lessons; SCUC U courses
1.3.2	Establish a timeline for annual completion of digital citizenship instruction.		2018-2019	Instructional Technology	Documented timeline
1.3.3	Establish expectations for digital citizenship instruction for all grade levels and content areas.		2018-2019	Instructional Technology	Documented expectations
1.3.4	Ensure that all teachers and support staff understand their role in delivering digital citizenship instruction.	Currently have begun introducing Digital Citizenship through the means of the librarian on secondary campuses. Tech apps teachers are delivering instruction to	ongoing	Instructional Technology Campus Administrators	Professional development offerings
1.3.5	Collaborate with campus administration to select campus support leaders for digital citizenship.	Established that librarians for secondary's are resource for campus staff for digital citizenship but responsibility lies within all staff.	Spring 2017	Instructional Technology Campus Administrators	Published list
1.3.6	Provide digital citizenship and student data privacy instruction for all staff.	Currently working with PK-6 teachers on a platform for staff to access and complete course for understanding. Librarians at secondary campuses deliver instruction through staff meeting at beginning of each year updating new policies information.	ongoing	Instructional Technology Campus Administrators	Professional development offerings

1.3.7	Provide digital citizenship training for the community through Technology Nights.	Planning Family Technology Nights	Fall 2018	Instructional Technology Campus Administrators	Scheduled events
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Objective 1.4:

Provide opportunities for the community to learn about digital tools and resources in SCUC.

Strategies	Status	Timeline	Person(s) responsible	Evidence	
1.4.1	Host Technology Nights throughout the year for parents and community members.	Planning Family Technology Nights	Semi-annually	Instructional Technology	Scheduled events; family participation
1.4.2	Work with campus leadership to provide ideas for technology learning opportunities during campus Family Nights, Open House etc.		ongoing	Instructional Technology	Scheduled events; family participation
1.4.3	Host a student showcase in collaboration with Student and Academic Services.	An expectation of the LIT Academy attendees will be to participate in a students showcase to share projects that teachers have integrated into the curriculum for students to complete.	Annually beginning Spring 2019	Instructional Technology Curriculum Coordinators	Number of student participants

Objective 1.5:

Increase online learning opportunities for students.

Strategies	Status	Timeline	Person(s) responsible	Evidence	
1.5.1	Provide online courses for original credit.	Currently utilizing Edgenuity for seniors to provide original credit for graduation requirements.	ongoing	Caleb Hudgens Cassandra Gracia Campus Counselors	Completion records
1.5.2	Research districts with virtual schools/academies to determine feasibility for SCUC.		Fall 2018	Caleb Hudgens	Research report

Goal 2:

Provide ongoing professional development in a variety of formats to support personalized learning for all. (P2)

Objective 2.1:

Provide professional development on effective integration of technology into teaching and learning.

Strategies	Status	Timeline	Person(s) responsible	Evidence	
2.1.1	Model effective technology integration and best practices in all professional development.	ongoing	Instructional Technology Curriculum Coordinators	LIT Academy All professional development offerings Instructional Model Team	
2.1.2	Establish expectations for technology integration in the classroom.	ongoing	Instructional Technology Curriculum Coordinators	Focused Planning Guides Instructional Model LIT Academy Content	
2.1.3	Establish and expand online learning opportunities for staff in a variety of formats.	Currently seeking out other districts for input on how they provide learning opportunities. Implemented in 2016: Lunch and Learns through Skype Video bank of professional development videos e-courses	ongoing	Instructional Technology Curriculum Coordinators	Online professional development offerings
2.1.4	Provide online tutorials, instructional videos and application examples of best practices for instruction.	ongoing	Instructional Technology Curriculum Coordinators	Videos posted in Office 365 Tech Tip Tuesday	

2.1.5	Develop and implement a Leaders of Innovative Teaching (LIT) academy to build capacity for technology integration and support on campuses.	Second cohort applications open in April 2018 First cohort will mentor second cohort	Spring 2017	Instructional Technology Curriculum Coordinators	Participation records
2.1.6	Collaborate with campus leadership teams to determine professional development needs.		ongoing	Instructional Technology Campus Administration Curriculum Coordinators	Needs assessment
2.1.7	Collaborate with the curriculum and special education divisions of SAS to plan develop and deliver campus/district professional development.		ongoing	Instructional Technology Curriculum Coordinators Campus Administration Kim Williams Dr. Toni Wood Michelle Chae	SCUC U
2.1.8	Disaggregate technology utilization assessment data to determine technology strengths and opportunities for improvement.		Survey cancelled	Dr. Karla Burkholder Candee Mills Campus Administration	
2.1.9	Plan and deliver technology integration professional development that address the needs of all professional staff.	Provide PD offerings in a variety of formats based on their learning style and needs.	ongoing	Instructional Technology Curriculum Coordinators	Tech & T-TESS site SCUC U Tech Tip Tuesdays
2.1.10	Provide online tutorials and instructional videos of best practices.		ongoing	Instructional Technology Curriculum Coordinators	Tech & T-TESS site SCUC U Tech Tip Tuesdays

Objective 2.2:

Provide professional development for administrative and support staff.

Strategies	Status	Timeline	Person(s) responsible	Evidence	
2.2.1	Provide professional development for administrators on effective use of technology as leaders.	ongoing	Instructional Technology	PD records SCUC U	
2.2.2	Provide professional development for administrators to develop a deeper understanding of effective technology integration in the classroom.	Technology & T-TESS workshop for administrators is in development	ongoing	Instructional Technology	Principal PLC Agendas AP PLC agendas
2.2.3	Provide training opportunities for support staff.	ongoing	Instructional Technology Curriculum Coordinators	SCUC U courses offered	

Objective 2.3:

Design and implement technology integration proficiencies for all professional staff aligned to the SBEC technology standards for teachers.

Strategies	Status	Timeline	Person(s) responsible	Evidence
2.3.1	Define and develop technology proficiency requirements for professional staff.	2018-2019	Instructional Technology	Documented proficiencies
2.3.2	Design professional development to aid staff in developing required proficiencies.	2018-2019	Instructional Technology	Approved requirements
2.3.3	Implement technology proficiency requirement and professional development.	2019-2020	Instructional Technology	Professional development records

Goal 3:

Provide anytime, anywhere access to technology resources through a secure and robust enterprise network to facilitate effective and efficient operations. (P3)

Objective 3.1:

Develop, review and update a disaster recovery plan to ensure uninterrupted connectivity to mission critical applications and data.

Strategies	Status	Timeline	Person(s) responsible	Evidence	
3.1.1	Implement network redundancy for district internet services	Complete	Summer 2017	Thomas Russell Jose Gonzalez	Conection tests and monitoring
3.1.2	Implement Backup solution	Complete	Summer 2017	Phillip Ryan Jonathan Rowe Jose Gonzalez	server reports and notifications
3.1.3	Implement plan for redundant server hardware	In progress / Reviewing options	2018	Thomas Russell Jose Gonzalez Phillip Ryan Jonathan Rowe Steve Barnwell	Testing with disaster recovery
3.1.4	Develop and document a formal disaster recovery/business continuity plan	In progress	Fall 2018	Dr. Karla Burkholder Thomas Russell Jose Gonzalez Phillip Ryan Jonathan Rowe Steve Barnwell	Semi Annual Tests
3.1.5	Implement test environment and establish a schedule for testing the disaster recovery/business continuity process	In progress	Fall 2018	Thomas Russell Jose Gonzalez Phillip Ryan Jonathan Rowe Steve Barnwell	Completed tests
3.1.6	Implement process and procedures for cloud backup of critical data	Chose a backup solution with cloud option. Have not yet purchased cloud option.	Summer 2020	Thomas Russell Jose Gonzalez Phillip Ryan Jonathan Rowe Steve Barnwell	Semi Annual Recovery Testing Reports

Objective 3.2:

Maintain monitor and update network and data security protocols to minimize vulnerabilities and data breaches.

Strategies	Status	Timeline	Person(s) responsible	Evidence
3.2.1 Document, monitor and test network, user accounts and data for security vulnerabilities	In progress	ongoing	Thomas Russell Jose Gonzalez Phillip Ryan Jonathan Rowe Steve Barnwell	reports
3.2.2 Establish a plan for regularly updating equipment software and firmware		Review weekly	Thomas Russell Jose Gonzalez Phillip Ryan Jonathan Rowe Steve Barnwell	Record Keeping and Reports
3.2.3 Ensure CIPA FERPA and HIPAA compliance	On going	ongoing	Thomas Russell Jose Gonzalez Phillip Ryan Jonathan Rowe Steve Barnwell	CIPA and HIPAA compliance trainings and auditing
3.2.4 Establish policies for ensuring information and data security align local, state and federal laws	Security audit planned for 2017-2018 school year	Summer 2018	Thomas Russell Jose Gonzalez Phillip Ryan	Documentation
3.2.5 Establish an identity management process to streamline account creation and deletion		Fall 2019	Phillip Ryan Candee Mills Lana Pratt HR	Documented process
3.2.6 Implement Network Admission/Access Control to enforce network policies and monitor non-district devices on the network.		Fall 2019	Phillip Ryan Thomas Russell Jose Gonzalez	Network Policies Documented
3.2.7 Conduct a network and data security audit		2017-2018	Dr. Karla Burkholder	Completed audit
3.2.8 Hire additional network personnel	on hold	Review annually	Dr. Karla Burkholder	

Objective 3.3:

Establish network hardware and software standards.

Strategies	Status	Timeline	Person(s) responsible	Evidence	
3.3.1	Establish a process for the evaluation, selection, purchase, implementation and support of all district hardware and software.	Software process is in place Hardware replacement cycles established in the EPP	Spring 2017	Dr. Karla Burkholder	Documentation
3.3.2	Modernize Active Directory	Complete	Spring 2017	Phillip Ryan	AD reports
3.3.3	Develop an implementation strategy for future Windows Operating Systems	In testing phase	2017-2018	Phillip Ryan	Documentation
3.3.4	Refine the technology replacement process based on the district Expenditure Projection Plan (EPP) to include both campuses and departments in the current replacement schedule	In progress	Ongoing	Dr. Karla Burkholder Candee Mills Jonathan Rowe Thomas Russell Jose Gonzalez Phillip Ryan Steve Barnwell	EPP

Objective 3.4:

Maintain and upgrade network resources including servers and storage.

Strategies	Status	Timeline	Person(s) responsible	Evidence	
3.4.1	Relocate network operations center	on hold	Fall 2019	Dr. Karla Burkholder Dr. Damon Edwards Wayne Pruski	
3.4.2	Maintain/upgrade NOC equipment	Evaluating Hardware	Ongoing	Thomas Russell Jose Gonzalez Phillip Ryan Jonathan Rowe Steve Barnwell	Documentation Service Uptime
3.4.3	Establish server and storage redundancy		2019-2020	Thomas Russell Jose Gonzalez	Connectivity

3.4.4	Maintain and update connectivity to all district facilities		Ongoing	Thomas Russell Jose Gonzalez	Service uptime
3.4.5	Implement enterprise storage strategy	In Process	Summer 2018	Thomas Russell Jose Gonzalez Phillip Ryan Jonathan Rowe Steve Barnwell	Working storage
3.4.6	Evaluate and upgrade backup systems	Complete	Summer 2017	Thomas Russell Jose Gonzalez Phillip Ryan Jonathan Rowe	3-2-1 Backup Strategy
	Increase WiFi for support of additional mobile devices		Review annually	Thomas Russell Jose Gonzalez Steve Barnwell	Device connectivity
3.4.7	Conduct independent wireless survey		Fall 2018		Documented survey results
3.4.8	Increase bandwidth based on need	Two 10GB Internet connections go live May 2017	Review annually	Dr. Karla Burkholder Candee Mills Thomas Russell Jose Gonzalez	Bandwidth measurements
3.4.9	Remove obsolete operating systems from the network	Reviewed annually	As needed	Phillip Ryan Jonathan Rowe Steve Barnwell	Documentation
3.4.10	Label tech rooms and racks	Complete	2014-2018	Thomas Russell Jose Gonzalez	Labels in place
3.4.11	Install cable management in all tech rooms		in progress	Thomas Russell Jose Gonzalez	POs
3.4.12	Install dedicated cooling systems to all technology rooms	Evaluating technology rooms	2018-2019	Thomas Russell Jose Gonzalez JD Mosley	POs

3.4.13	Establish a process for regularly testing and monitoring UPS systems	Fall 2017	Thomas Russell Jose Gonzalez Jonathan Rowe Steve Barnwell	Conducted on Saturdays; systems sends an email with results
3.4.14	Conduct a district wide technology assessment	Fall 2019	Dr. Karla Burkholder	Assessment report

Objective 3.5:

Collaborate with departments on the selection implementation and coordination of technology resources for effective and efficient operations.

Strategies	Status	Timeline	Person(s) responsible	Evidence
3.5.1	Assist departments in researching new technology tools	ongoing	Technology Department	Documentation
3.5.2	Develop a protocol for proof of concept analysis for new technologies	on hold	Technology Department	Documentation
3.5.3	Communicate technology hardware and software procurement procedures to all campuses and departments	Fall 2017	Dr. Karla Burkholder Candee Mills	Documentation
3.5.4	Develop a process for updating the phone directory	Complete	Fall 2017 Thomas Russell Jose Gonzalez	Documentation
3.5.5	Implement enhanced 911 system	Not started	Fall 2018	POs
3.5.6	Develop a process for monitoring security camera status on all campuses	in process	Fall 2017 Thomas Russell Jose Gonzalez	Checked daily

Goal 4:

Provide excellent customer service through timely response to technology support requests. (P3)

Objective 4.1:

Provide technical and network assistance to insure uninterrupted connectivity and instructional and business continuity.

Strategies	Status	Timeline	Person(s) responsible	Evidence	
4.1.1	Provide a help desk service during work hours for technical assistance	Ongoing	Jonathan Rowe	Help Ticket System Surveys And Documentation Website Database	
4.1.2	Provide online tutorials and a searchable knowledge base for technical assistance	Planning and design. Current Knowledge base in eduphoria and looking at other solutions	Ongoing	Linda Coolbaugh Candee Mills Lana Pratt Steve Barnwell Jonathan Rowe	
4.1.3	Provide campus technical support	Ongoing	Jonathan Rowe Help Desk Thomas Russell Jose Gonzalez Steve Barnwell	Help Ticket System and Surveys	
4.1.4	Establish a schedule for technology inventory audits on campuses.	Not started	Spring 2019	Jonathan Rowe Thomas Russell Jose Gonzalez Steve Barnwell	Documentation
4.1.5	Develop and utilize a process for troubleshooting and escalating help desk tickets		Spring 2018	Jonathan Rowe	Documentation
4.1.6	Hire additional technical support personnel		Review annually	Dr. Karla Burkholder Candee Mills Jonathan Rowe	

Objective 4.2:

Develop and implement a student internship program.

Strategies	Status	Timeline	Person(s) responsible	Evidence	
4.2.1	Train high school and junior high school students in technical skills to provide additional technical support for campuses.	Not started	2018-2019	Dr. Karla Burkholder Candee Mills Jonathan Rowe Thomas Russell Jose Gonzalez Phillip Ryan Steve Barnwell	Student Tech Support Assistance
4.2.2	Collaborate with CTE to ensure student credit for participation in the program	Not started	2018-2019	Dr. Karla Burkholder Candee Mills Michelle Chae	Documented Credit