

San Diego Miramar College Technology Plan

**Three Year Rolling Technology Plan
Fall 2014-Spring 2017**

Approved by College Executive Committee 11/04/2014

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Technology Committee Membership

Daniel Miramontez	Dean, PRIE, Library & Technology, Co-Chair
Kurt Hill	Classified, Co-Chair
Vacant	Administrative Representative
Vacant	Academic Senate Representative
Christopher Silva	Faculty, School of MBEPS
Vacant	Faculty, School of Liberal Arts
Vacant	Faculty, School of Public Safety
Alan Viersen	Faculty, School of BTCWI
Cynthia Gilley	Faculty, Member-At-Large
Tom Davenport	Classified Senate Representative
Glenn Magpuri	Supervisor, Library & AV
Kurt Hill	Microcomputer Specialist Supervisor
Janice Hecksel	ACS, Enterprise Network Specialist
Kent Keyser	SDCCD Director IT, Ad Hoc Member
Vacant	Student Services Representative

The Technology Committee membership is updated annually

Technology Plan Purpose and Goals

The **purpose** of the San Diego Miramar College Technology Plan is to provide technology support services to enhance instruction, college services, and business processes for students, faculty, administrators, and staff. This plan sets the operational direction, college goals and objectives in alignment with the updated Fall 2013- Spring 2019 San Diego Miramar College Strategic Plan. The San Diego Miramar College Technology Plan is reviewed and updated annually.

The **goals** of the San Diego Miramar College Technology Plan are:

- Facilitate learning and teaching by providing access to information and instructional technologies to students, faculty and staff.
- Enable students, faculty and staff to effectively use technology resources through coordination, collaboration and communication.
- Sustain and improve instructional, student and administrative support services, and the college's business processes.
- Increase application and use of technology resources through staff development.

Technology Support Services Responsibilities & Staffing

The college technology support services are a shared responsibility between campus support services and the San Diego Community College District (SDCCD) Office of Information Technology which provide hardware, software, and infrastructure to support learning, teaching, college-wide communications, research, and operational systems. The technology and support services covered in this plan do not necessarily include program-specific technologies that are covered by other planning processes and support services.

CAMPUS TECHNOLOGY SUPPORT SERVICES

The campus technology support services are provided by the Instructional Computing Services (ICS), Audio Visual (AV), Administrative Computing Services (ACS), Web Support, and the Professional Development Center (PDC).

Instructional Computing Support (ICS)

A. Responsibilities

1. The Instructional Computing Support (ICS) department has the responsibility for all instructional technology in computer labs, classrooms, and other student computer areas including:
 - a. Purchase, setup, maintenance, security, and disposition of equipment
 - b. Maintenance of a current inventory list of all hardware, software and licensing agreements within this area of responsibility
 - c. Provide input on purchase of new instructional hardware
 - d. Ensure readiness of hardware and software for instruction and other related campus activities
 - e. Support Pay for Print (P4P) campus infrastructure.
 - f. Work closely with Dean PRIE & Webmaster to support campus website
2. ICS works with users to address their common and emerging technology needs including: problem solving and technical advice, installing software, and collaboration for the development and maintenance of special web content management systems.

B. Contract Staffing

- | | |
|--|-----------|
| 1. Microcomputer Specialist Supervisor | 1.0 (FTE) |
| 2. Network Specialist | 1.0 (FTE) |
| 3. Instructional Lab Technician/CS | 1.0 (FTE) |

Audio Visual (AV)

A. Responsibilities

1. The Audiovisual (AV) department has the responsibility for all AV technology related to instruction and college activities on the Miramar campus, NTC, and MCAS. These responsibilities include:
 - a. Plan, design, coordinate and facilitate integration of Smart/AV instructional technology on campus
 - b. Video and audio production, video conferencing, captioning
 - c. Purchase, setup, maintenance, security and status of equipment
 - d. Maintenance of a current inventory of all AV equipment on campus and all off-site locations
 - e. Provide set-up and assistance with the operation of AV equipment at college events
 - f. Provide audiovisual technology training for administrators, faculty, staff, and students
2. AV recommends/oversees the purchase of audiovisual/ Smart technology for all departments on campus.

B. Contract Staffing

1. Instructional Support Supervisor 1.0 (FTE)
2. Instructional Lab Technician 2.0 (FTE)

Administrative Computing Support (ACS)

A. Responsibilities

1. The Administrative Computing Support (ACS) services for all faculty, staff and administrators computers are the responsibility of the campus liaison of the District Office of Information Technology (OIT). These include:
 - a. Purchase, set-up, maintenance, security, and disposition of equipment
 - b. Maintenance of a current inventory list of all hardware, software and licensing agreements within this area of responsibility
 - c. Responding to trouble calls, service requests, and provide one-on-one training
 - d. Support campus networking and Wi-Fi
 - e. Providing technical support for the Professional Development Center (PDC)
2. ACS works with faculty, staff, and administrators to provide input on purchase of hardware and software.

B. Contract Staffing

1. Enterprise Network Specialist 1.0 (FTE)

Web Support

A. Responsibilities

1. Web Support has the responsibility for development, support, maintenance, and update of top tier content of the college website.

B. Contract Staffing

1. Web Designer 0.70 (FTE)

Professional Development Center (PDC)

The PDC is an open lab with individual computer workstations with software and scanners that are not otherwise available to faculty (contract and adjunct), administrators, or staff. The PDC is also used for:

- a. Scheduled training sessions on technology applications such as Dreamweaver, PowerPoint, Access, and others.
- b. One-on-one assistance to faculty by the ICS, AV, and ACS staff.

SDCCD OFFICE OF INFORMATION TECHNOLOGY (OIT)

The District OIT provides support for the administrative computing environment, the network and telecommunications infrastructure, and core network and Internet services (<http://it.sdccd.edu/pages/1.asp>).

A. Responsibilities

The District OIT is responsible for:

- a. Administrative ERP Systems consisting of the Integrated Student Information System (ISIS), Sigma's Student Aid Management (SAM), Colleagues Finance and HR/Payroll, and various web application
- b. Telecommunications Infrastructure (Voice, Data, Video)
- c. Network and internet Services and security
- d. Email System (MS Exchange Mail/Internet SMTP Mail) including the Anti-SPAM, Anti-Virus systems
- e. Administrative Desktop PC support
- f. PBX Telephone System and the voice mail messaging systems g. Horizon Library System
- g. Blackboard Online Course Management System

Alignment of the Technology Support Strategies to the Strategic Plan Goals

Strategic Plan Goal			
Strategic Goal I: Provide educational programs and services that are responsive to change and support student learning and success.	Strategic Goal II: Deliver educational programs and services in formats and at locations that meet student needs.	Strategic Goal III: Enhance the college experience for students and the community by providing student-centered programs, services and activities that celebrate diversity and sustainable practices.	Strategic Goal IV: Develop, strengthen and sustain beneficial partnerships with educational institutions, business and industry, and our community.

Technology Plan Support Strategies		
ICS	AV	ACS
ICS 1.1 Support the academic program review with integrated emphasis on student learning outcomes (SLOs) by working with faculty SLO coordinators maintain in- house SLO tracking database, SLOJet. MAPS TO STRATEGIC PLAN STRATEGIES I.1, I.2	AV 1.1 Meet the audiovisual technology needs for instruction, support and administrative services on the college main campus and off-site areas, by recommending/overseeing audiovisual technology, its maintenance, and offering support through troubleshooting and problem solving. MAPS TO STRATEGIC PLAN STRATEGIES I.3, II.1, II.2, II.3	ACS 1.1 Meet the computing needs and provide appropriate technology and support for the colleges instructional and Student Services and administrative services administrators, faculty, and support staff on the main campus and other external sites, through Computing Desk Support (CDS), Infrastructure networking (ISN), Wi-Fi accessibility, PDC, one-on-one training, and troubleshooting. MAPS TO STRATEGIC PLAN STRATEGIES I.2, I.3, II.2, II.3, II.4
ICS 1.2 Work with Taskstream Workgroup to plan, implement rollout Taskstream, determine SLOJet migration or static maintenance path. MAPS TO STRATEGIC PLAN STRATEGIES I.1, I.2	AV 1.2 Train administration, faculty, staff and students on the use of Smart and Audiovisual Technology. MAPS TO STRATEGIC PLAN STRATEGIES I.3, II.3	
ICS 1.3 Maintain and update the technical skills of ICS staff in emergent technologies. MAPS TO STRATEGIC PLAN STRATEGIES I.3	AV 1.3 Continue to offer student work study experiences and opportunities in AV. MAPS TO STRATEGIC PLAN STRATEGIES I .2, I.3, II.3	

ICS 1.4 Meet the instructional computing needs on the main campus and off-site areas by upgrading of the server operating systems, maintaining instructional computers, installing appropriate software, and offering support through trouble- shooting and problem solving. MAPS TO STRATEGIC PLAN STRATEGIES II.4	AV 1.4 Provide the AV equipment and support staff for campus activities and events such as outreach and marketing • Develop audio and video for various campus programs to inform and raise awareness for prospective students in the community about Miramar programs and services. ○ Upload marketing and informational audio and video to the campus website on behalf of various departments. • Utilize digital signage technology as a medium to enhance visibility and provide information regarding campus resources and activities. • Develop media presence programs and resources to post information to Miramar website, social media outlets and mobile devices. MAPS TO STRATEGIC PLAN STRATEGIES II.3, IV.1	
ICS 1.5 Work with District IT to Provide wireless access to classrooms and student areas. MAPS To STRATEGIC PLAN STRATEGIES II.2 & II.4	AV 1.5 Sustainable use of Smart/AV technology MAPS TO STRATEGIC PLAN STRATEGIES III.1	
ICS 1.6 Work with website/technology committee to develop standards website. MAPS To STRATEGIC PLAN STRATEGIES II.4		
ICS 1.7 Sustainable use of technology. MAPS To STRATEGIC PLAN STRATEGIES III.2		
ICS 1.8 Provide technology support to departments/programs such as Automotive & Biotech to for vendor supplied technology. MAPS To STRATEGIC PLAN STRATEGIES IV.2		

Evaluation of the Campus-Based Technology Support Services over the Three Year Period of Rolling Technology Plan Fall 2013-Spring 2017

INSTRUCTIONAL COMPUTING SERVICES (ICS)

ICS Support Strategies	Measures	2013/2014	2014/2015	2015/2016	2016/2017
ICS 1.1 Support the academic program review with integrated emphasis on student learning outcomes (SLOs) by working with faculty SLO coordinators maintain in house SLO tracking database, SLOJet.	Collaboration with SLOAC Coordinators and develop SLOJet	Developed reporting queries for SLOAC coordinator & Continue work with SLOAC coordinator, develop new reports	Continued work with new SLO coordinator developing custom queries/reports		
ICS 1.2 Work with Taskstream Workgroup to plan, implement rollout Taskstream, determine SLOJet migration or static maintenance path.	Taskstream Progress	Work with Taskstream workgroup & tiger team to roll out Taskstream, layout training framework, etc. Committee is on track to begin “training trainers”			
ICS 1.3 Maintain and update the technical skills of ICS staff in emergent technologies. MAPS TO STRATEGIC PLAN STRATEGIES I.3	Self-training	As there is NO funding specifically identified for training IT staff, we self-train in a variety of ways; when new technology arrives, we make time to learn the technology prior to deployment, etc.	Self-training on VMWare, VSphere, SAN, vCenter, Drupal Purchase of Safari Books online		
	# of workshops or training sessions attended	None funded, two vendor sponsored events	One funded event: DrupalCon		

ICS 1.4 Meet the instructional computing needs on the main campus and off-site areas by upgrading of the server operating systems, maintaining instructional computers, installing appropriate software, and offering support through trouble- shooting and problem solving. MAPS TO STRATEGIC PLAN STRATEGIES II.4	#Computers Serviced		Projected 1,600 computers	Projected 1,700 computers	
	Services Provided		Support 17 different servers on both physical and VMWare VSphere platform to provide necessary campus instructional services. Upgraded all campus P4P to new technology. Evaluating technologies for thin-client/virtual desktop infrastructure for possible pilot lab.		
	Hours of Operation	7:00am – 4:30pm	7:00am – 4:30pm		
ICS 1.5 Work with District IT to Provide wireless access to classrooms and student areas. MAPS To STRATEGIC PLAN STRATEGIES II.2 & II.4	Wireless access has been added to classrooms and is included in new buildings		Migrated POST wireless from ten year old wireless to district provided enterprise wireless		

ICS 1.6 Work with website/technology committee to develop standards website. MAPS To STRATEGIC PLAN STRATEGIES II.4	WEBC has submitted documents proposing standards, best practices, etc.		WEBC standards Documents submitted to management & governance		
ICS 1.7 Sustainable use of technology. MAPS To STRATEGIC PLAN STRATEGIES III.2		Worked on updating the Technology Plan	Thin-client lab pilot provided potential energy savings		
ICS 1.8 Provide technology support to departments/programs such as Automotive & Biotech to for vendor supplied technology MAPS To STRATEGIC PLAN STRATEGIES IV.2	ICS supports several program specific technologies in Automotive, Diesel, Aviation, POST etc. Examples include Redbird flight sims, Toyota diagnostic computers, etc.	same	Same, addt'l specialized lab using biometric sensors now supported.		

AUDIO VISUAL (AV)

AV	Measures	2013/2014	2014/2015	2015/2016	2016/2017
AV 1.1 Meet the audiovisual technology needs for instruction, support and administrative services on the college main campus and off site areas, by recommending technology, its maintenance, and offering support through trouble shooting and problem solving MAPS TO STRATEGIC PLAN STRATEGIES I.3, II.1, II.2, II.3	# of Smart Classrooms supported	138			
	# of Campus events supported	58			
	# of Production request completed	6			
	Maintenance Schedule for Filter cleaning of projection units	Quarterly (see database for comprehensive breakdown)			
	# of response clickers	153			
	# of AV trouble calls (person, telephone, email, etc.)	5,600			
AV 1.2 Train administration, faculty, staff and students on the use of Smart and Audiovisual Technology MAPS TO STRATEGIC PLAN STRATEGIES I.3, II.3	# of Group training workshops offered	14			
	# of one on one training sessions	45			
	# of individuals who received AV training	51			
	# of individuals who completed AV training survey	56			
	Online survey assessing the effectiveness of the training and participants' confidence level with operating the equipment.	(See stats from Online Survey)			
	# of one-on-one clicker training sessions	0			

	# of training workshop attended by AV Staff	9			
AV 1.3 Continue to offer student work study experiences and opportunities in AV MAPS TO STRATEGIC PLAN STRATEGIES I .2, I.3, II.3	# of work study students	7			
	# of new skills attained/developed during employment	8			
AV 1.4 Provide the AV equipment and support staff for campus activities and events such as outreach and marketing • Develop audio and video for various campus programs to inform and raise awareness for prospective students in the community about Miramar programs and services. • Upload marketing and informational audio and video to the campus website on behalf of various departments. • Utilize digital signage technology as a medium to enhance visibility and provide information regarding campus resources and activities. • Develop media presence programs and resources to post information to Miramar website, social media outlets and mobile devices. MAPS TO STRATEGIC PLAN STRATEGIES II.3, IV.1	Statistics of Event setups and support provided for Outreach and marketing activities and other events.	5			
	Post event survey evaluating the quality of AV service and equipment	10			

AV 1.5 Sustainable use of Smart/AV technology • Continue with energy efficient technology equipment • Properly dispose, recycle, and repurpose audiovisual technology equipment MAPS TO STRATEGIC PLAN STRATEGIES III.1	# of AV equipment	TBD			
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ADMINISTRATIVE COMPUTING SUPPORT (ACS)

ACS Support Strategies	Measures	2013/2014	2014/2015	2015/2016	2016/2017
ACS 1.1 Meet the computing needs and provide appropriate technology and support for the colleges instructional and Student Services and administrative services administrators, faculty, and support staff on the main campus and other external sites, through Computing Desk Support (CDS), Infrastructure networking (ISN), Wi-Fi accessibility, PDC, one-on-one training, and troubleshooting. MAPS TO STRATEGIC PLAN STRATEGIES I.2,I.3,II.2,II.3,II.4	# of desktop computers\laptops serviced (Administrators, Faculty, Classified Staff)	606			
	# of service requests (including one-on-one training)	1598 plus the student services building opening	Three new buildings open summer 2014	One new building opening summer 2015	
	# of Trouble calls	1849	.		

APPENDIX

ANNUAL SWOT ANALYSES OF TECHNOLOGY SUPPORT SERVICES

ICS SWOT Analysis Matrix (2014/2015)	
Strengths, Weaknesses, Opportunities, and Threat Analysis	
Strengths	Weaknesses
1. Skilled staff in diverse technologies 2. Support (1500+) instructional computers 3. Provide solutions at low/no cost when possible (good grasp of open source resources) 4. Reuse of computers 5. Virtualized servers increase reliability and save money 6. Stable labs/classrooms via DeepFreeze	1. Limited staff 2. No training funds – Specifically, the campus has never recognized that technology support requires ongoing training funds as a routine part of providing effective support. <i>Spending \$20,000/yr. to train a small staff to efficiently support the campus is significantly cheaper than hiring more staff.</i> 3. Limited funds to handle equipment failures. Equipment repair/maintenance needs are often delayed by a scramble to identify funds. Departments are routinely unprepared to spend the money for routine maintenance on equipment, and the funding has not been provided centrally to the IT departments to handle these routine requests. 4. Some outdated computers labs unable to support newer OS's. Supporting a multi-generation OS infrastructure is more difficult. 5. Lack of official campus computing standards, or acceptance of those standards which do exist
Opportunities	Threats
1. Increase server reliability through VMWare VSphere infrastructure rather than free virtualization. Added cost is cheaper than additional staff (significantly!) or additional servers (marginally). 2. Take advantage of free training when available. 3. Virtual Desktop Infrastructure: ICS has been reviewing this and it may be worthwhile to invest in a single lab deployment for testing.	Continued lack of funding Lack of training – technology will outpace what we can self-teach 4. Self-learning takes significant time 5. Vastly increased computer counts limit time for self-teaching 6. Conversely, self-teaching slows down service. Free training tends to be sales presentations, biased and not as good/thorough as “real” training

Audiovisual SWOT Analysis Matrix (2014/2015) Strengths, Weaknesses, Opportunities, and Threat Analysis	
Strengths	Weaknesses
1. Shared Governance process 2. AV skills, knowledge & certifications 3. Audiovisual Technology to support instruction 4. Use Smart Technology 5. Relationships with vendors 6. Highest customer satisfaction rating by campus climate survey 7. Consolidated Help Desk	1. Limited staffing/Lack of Contract staff 2. Budget allocated for hourly employees and 25 hour cap per week for hourly staff. 3. Lack of process to include Total Cost of Ownership 4. Lack of process to manage life cycle of AV assets 5. Ongoing budget for lamps/supplies 6. Communication flow a. New construction b. Departmental 7. Equipment Maintenance a. Install Global viewer (by Extron) b. Work with District IT for static IPs
Opportunities	Threats
1. Rent out facilities 2. Provide support to outside groups/entities using campus facilities	1. Vendors' priorities to institution to meet campus timelines 2. Vendors not meeting obligations 3. Unresponsive construction project mgt. 4. Maintenance for Smart classrooms 5. Lack of funding to support services 6. No budget allocated for training

ACS SWOT Analysis Matrix (2014/2015) Strengths, Weaknesses, Opportunities, and Threat Analysis	
Strengths	Weaknesses
1. District wide Help Desk 2. Fast response time for problems and requests 3. Logical approach to problem solving 4. Relationships with vendors 5. Shared Governance process	1. Limited staffing 2. Lack of training on new technology 3. Limited budget to replace out-of-warranty equipment 4. Limited communication with IT and staff
Opportunities	Threats
1. Train staff while assisting them 2. Learn new technology	1. New spyware and viruses 2. Employees using non-standard applications

EVIDENCE OF THE COLLEGE SUPPORT OF TECHNOLOGY SERVICES
ANNUAL NEEDS

Following identification of technology needs in the annual Program Review Reports, Requests for Funding (RFFs) with clear justification were submitted to the Budget and Resource Development Subcommittee (BRDS) since 2013/2014. A summary of approved technology requests and allocated fiscal resources is presented in the following table.

ICS Requests	Campus Resource	Status	2013/2014	2014/2015	2015/2016	2016/2017
SAN Storage			ICS Requested additional SAN Storage unit to replace/retire old server which was running out of space, and would integrate into our VSphere infrastructure. SAN storage was approved, but storage for SAN storage is only marginal improvement; however it is an improvement.	None submitted due to lack of funding source		

AV Requests	Campus Resource	Status	2013/2014	2014/2015	2015/2016	2016/2017
Walkie-Talkies	BRDS	Funded	\$1,404			
LCD Monitor and Mobile LCD Stand	BRDS	Funded	\$1,944.69			

ACS Requests	Campus Resource	Status	2013/2014	2014/2015	2015/2016	2016/2017
Faculty computer for new hires	BRDS		Three new computers and six roll downs from ICS.	Need some for new hires.		