



TECHNOLOGY PLAN

Revised December 2011

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Cañada College Technology Plan

The Technology Plan is a living document providing guidance for the acquisition and application of technology in a continually changing teaching and learning environment. The Technology Committee will review the plan a minimum two times a year and ensure that it is understood throughout the college community and that it is implemented in a timely manner. The Cañada College Technology Committee will ascertain that its plan informs and is integrated with the San Mateo County Community College Strategic Plan.

The Technology Plan of the College is intended to act as a compass, giving direction to the technology decisions of the College and ascertains that technology use assists in the fulfillment of the vision of the college.

Technology is implemented both to enhance and improve instruction and provide ways for the college to perform its operations in business, research, and student services more efficiently and effectively. The technology environment is dynamic and changing rapidly. A good technology plan references on a constant basis the vision of the college, examines how technology is applied to fulfill the vision, and determines how new technology advances learning and efficient operation of college programs and necessary supportive infrastructure. Fulfilling the vision of the College sets forth the assumption that the college will work closely in identifying and applying new technology solutions in every aspect of conducting the educational mission.

The Cañada College Technology Committee is a subcommittee of the College Council and is composed of representatives, both classified and certificated, from every division of the College, administrative, a representation from the District Information Technology Services Department, and the Information Technical Services Department of the College. When the Technology committee was developed, the committee was responsible for both the technology and the distance education components for the college. In fall 2010, the Distance Education component was split out and a new committee was formed to work solely with distance education. The two committees invite participants to attend all meetings. The Technology Committee meets a minimum of two times per year and should send a written report to the College Council concerning the following:

- Assess and report upon the progress of the College Technology Plan.
- Develop new components of the Technology Plan deemed to be accord with the changing technology needs for instruction, student services, and business operations.
- Utilize appropriate instruments and expert consultation which survey and delineate the technology needs of the College.
- Develop and review the budgetary requirements for the ongoing implementation of the Technology Plan.

Cañada College Technology Vision

The Cañada College community will have immediate, easy and pervasive access to up to date, secure, reliable technology that expedites learning and teaching, the improvement of instruction and all operations of the College. Technology will have no boundaries, accessible anywhere, anytime and maintained by highly trained technical professionals. The use of technology will enable rapid communication with and between faculty, students, staff and community concerning any aspect of the College environment affecting the progress of the Cañada College Mission and Vision.

Strategic Goals:

Technology Goal 1: Continually promote, improve and expand the use of technology in the teaching and learning process by providing staff development for all faculty and staff that makes their work more efficient and more productive. Training will be available on campus for new software, hardware, and classroom equipment.

- Monitor the use of the CIETL for the application of training in programs that add to the efficacy and efficiency of faculty and staff.
- District offers STOT to faculty and staff to enhance distance education coursework.
- Develop and apply instruments that survey, delineate and evaluate the technology training needs of the faculty and staff.
- Determine where and how pilot programs in the use of technology will be applied at the College whenever deemed to be appropriate.

Summary:

- The District purchased a site license for every district owned computer to have the Adobe Creative Suites software. District offers various levels of training to faculty and staff in Adobe Creative Suites product line (Acrobat, DreamWeaver, Photoshop). This training is provided to all District employees.
- Hired Instructional Designer to work with faculty and staff in integrating pedagogy and technology.
- Library faculty has implemented electronic options for research and reading options for the library, e.g. (MICHELLE MORTON)
- Enhancing faculty's use of Moodle to integrate classes in Moodle with an interface on the web (meeting with ITS personnel on 12/13/11)
- The grants that are received by the college allows the college to update their hardware to keep current
- College successful with the lack of local and state funding due to the grants that allow for the purchase of equipment. Current equipment is then deployed to other departments throughout the campus where the technology is older.

Strategic Planning Goal 2: Develop new programs and strengthen existing programs to meet community and business needs. Remain competitive in the education environment and prepare students for the workforce by incorporating new technology into programs.

Strategic Planning Goal 10: Expand the scope of offerings of the CIETL to include workshops in applications of technology in instruction and learning strategies, programs for student support services and business operations. WebCAPP is the online system to create automated degree and certificate evaluations. It is accessed through WebSMART and allows students and advisors to view past degree evaluations, generate new evaluations of current student data, or conduct a “what if” scenario for deciding what courses are needed to fulfill a selected degree or certificate.

Technology Goal 2: Provide the technology infrastructure to continually improve the operations and services of the college. The infrastructure is routinely monitored and updated to allow the college to move forward seamlessly as the technology changes.

- Work closely with District ITS in assessing the infrastructure needs of the college and determining its ability to support state of the art technology.
- Ascertain and delineate new standards for the presence and use of technology in instruction and business operations in the workplace and classrooms.

Summary:

- ACAMS – security for doors
 - Need to revisit the ACAM devices throughout the campus for security purposes
- Wireless – additional “hot spots” were added to the overall college; however, there needs to be additional “hot spots” in Bldgs. 5 & 6
- The Grove, formerly the cafeteria, has been upgraded to include power and data ports to support student, faculty, and staff usage. The Grove also includes a video wall--9 panels with integrated sound for college presentations, messaging, and community usage.
- Upgrade of buildings 5 & 6 includes the addition of six Smart classrooms and five conference rooms.
- Due to the expansion of computer use, technology, and environmental needs, e.g. lighting, air conditioning, the main electrical service feed is being done in December 2011. New transformer in Bldg 13 will be replaced due to the expansion of technology, as well.
- Bandwidth usage is being monitored by the District personnel to make sure there is sufficient bandwidth as faculty and staff increase their usage on campus.
- The college is committed to support the technological needs at the off campus sites.

Technology Goal 3: Use technology to improve communication with students, faculty, staff, alumni and the general public. Websites, portals and internal software packages which enhance communication will be continually applied and upgraded.

- Evaluate twice yearly the efficacy and attractiveness of the College Website and coordinate improvements with the marketing needs of every division and program. Need additional WebSmart online services for students.
- Ascertain and direct the application of improvements of technology that expedites communication with all students and families of the peninsula.
- Provide technical and development support for faculty
- Analyze the results of having an Instructional Designer available to assist faculty with the implementation of their online courses.

Summary:

- Every student within the SMCCCD is issued an unique college e-mail account, texting for emergency situations--content management system has been implemented.
- Digital signage as a communication tool located in the Admissions & Records office of Bldg. 9 to disseminate information; college needs to look at the possibility of purchasing a digital sign for the front of the school.
- New Smart Projectors include closed caption capability.
- IntelliResponse being implemented 2011-12, the PIO is a key leader in implementing this product.
- Revamping college website, the PIO is currently serving as chair of a committee in revamping the college website.
- Degree Works implemented 2011-12, the A & R personnel, Dean and VPSS are working closely within all three colleges and the District.
- CurricUNET—has been implemented for new courses only; there are challenges that have faced the District that are being worked on.
- TracDat—being used by all faculty to document their SLO work.
- Increased use and training of CCC Confer with Engineering Professor and the instructional Designer will be offering additional training sessions for faculty and staff.
- Skype Mobile has been created for the college for conference calls

Technology Goal 4: The Research Office will provide resources and training which assist faculty in the analysis of instructional data and accompanying changes in instructional methods. This necessary service is in accord with the use of course and program SLOs. This service will expedite reporting, data collection and research efforts and include data-modeling and performance measurement.

- Implement a new research position: Director of Research, Educational Planning and Student Success.
- Monitor the effective connection of the research and planning position with the strategic Plans of the College and the ongoing research of that office in student performance and the evidence manifesting the educational needs of the community.
- Connect the research of the college with all SLO planning and dialogue of faculty and staff emanating from that endeavor

Summary:

- Researcher needs to work closely with CIETL to increase training for faculty and staff
- Researcher has developed the “Dashboard” and tools to be used as resources and needs to disseminate the information college wide.
- Researcher has worked with the SLO coordinator and has met with faculty and staff at division meetings.

Technology Goal 5: Strategic goals for the acquisition, implementation and maintenance of technology will be delineated, undergirding the strategic planning goals emanating from the vision for the college and identified by the college community through the shared governance process. In the Educational Master Plan for 2012-2015, vetted and approved by all shared governance bodies at the College, the four strategic directions include teaching and learning, completion, community connections, and global and sustainable .

- Develop the appropriate policies and guidelines for expenditures of capital funds for the purchase of new technology and programs and/or its replacement.
- Develop two year plans for the purchase of new technology and the replacement of college technology and infrastructure.
- **RE Bullet 2 – spreadsheet indicating two year plan for the purchase of technology is forthcoming.**

Summary:

Due to the instability of ongoing funding at the state level, it is very difficult to maintain the level of technology on the campus without the support of grant monies available.

Technology Goal 6: Ascertain that state of the art adaptive and assistive technology is available to all students possessing any form of learning and or physical difference.

- Evaluate the present use of adaptive technology by students identified to possess special learning needs.
- Determine the needs for new or expanded technology that is more likely to satisfy special learning needs.

Summary:

- Digital signage installed in Bldg 9 – Admissions & Records Office.
- The new smart projectors have closed caption capability in buildings 16, 17, 18, 9 & 22-113.
- The Alt Media Specialist position was a part time position and in 2010 became a full time position and serves all students, faculty and staff on campus.
- The DSP&S office changed their name in 2010 to DRC (Disability Resource Center)
- The DRC is client dependent at the college. All three colleges purchased a three year universal license/agreement and every computer can have Kurzweil installed on it, as well as students can have the program installed on their home computers; fire fly is also available and places files up in the cloud, v. 13 and works on all mobile devices as this is the professional license. All need to have access to the Internet to get a virtual license. For low vision students, the DRC purchases software and equipment to meet current and future needs. Also for low vision students, we have technology such as Kurzweil (screen reader), and Jaws software for the totally blind students. Kurzweil is more of a universal tool – highlight notes – creates study notes, universal learning tool. The ESL program shows the students how to phonetically say the words, gives definitions, has a thesaurus to be used. Also, if a student is writing in English and then switches over to another language, Kurzweil will highlight and convert to multiple languages. This program removes roadblocks for students. Also, the DRC has Topaz, which is a digital magnifier that enlarges letters and adjusts background colors; Sapphire which is a small magnifier to be used in the classroom; Zoom Text is also available and magnifies 3,600 times. The magnification is very crisp and is a clean font; however, does not work well with the My Math lab program the Math Department uses. For the hearing difference, the DRC has an FM transmitter/receiver so students can hear clearly like the instructor is standing right next to the student. For the learning difference, pulse pens, ipads, etc. are available to students to check out and use in their classroom. Pulse pens are available to students and instructors to use. For students who have carpal tunnel, Dragon Naturally Speaking is available and is a productive tool.

Technology Goal 7:

- Need to develop a Technology form to be used by all faculty and staff for any technology needs on campus.
- Create the Technology website and place the form on the website to either download and complete or complete online and send electronically to the VPI Office for collection and then the Technology Committee will meet to discuss and either approve or disapprove request.

Summary:

- Form has been created and will be implemented in fall 2012
- Website will be created during the spring and summer 2012 semesters

Information Technology Services: 2008 - 2012

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Vision:

The San Mateo County Community District is committed to the effective and responsible use of information technology resources to:

Enhance and support the teaching and learning environment

Provide easy access to learning resources and support services

Facilitate communication throughout the District

Improve institutional effectiveness by maximizing resources, improving services, and supporting those learning activities that are enhanced through technology

Improve operational effectiveness and efficiency

Serve our diverse teaching and learning communities

Mission:

To provide a responsive and supportive information technology environment that is consistent with the mission of the Colleges and the District Office.

Information Technology Services (ITS) provides all services and support in a manner that is focused on customer service and satisfaction.

Goals:

Continue to enhance and improve the capabilities and functionality of the administrative information systems environment to better serve faculty, staff and students

Enhance the capabilities and support for the use of instructional technology for teaching and learning

Continue to improve the information technology infrastructure to provide reliable and high-performance access to network and online services

Maintain an effective and responsive organizational structure to support administrative information systems and instructional technology

Provide technology leadership for the many College construction projects currently in progress or planned for the future

Research and present to the District new technologies that have the potential to improve teaching and learning or enhance administrative functions.

ITS - organizational structure and governance

ITS is a centralized service organization dedicated to providing information technology leadership, support staff, training, policies and procedures related to technology, strategies for the effective deployment and utilization of information technology, and assisting the three Colleges as directed with local technology initiatives, projects and planning. A listing of these services can be found at <http://www.smccd.edu/accounts/smccd/departments/itservices/>

Scope of Services

Administrative Systems

ITS supports a wide range of tools and applications that are used by the Colleges and the District Office to support their operational needs more effectively. Many of the core services are provided through the Enterprise Resource Planning (ERP) system that is complemented by the capabilities of a number of third party systems.

Banner - SunGard Banner is the ERP system utilized at San Mateo CCD. It was initially installed in 1991-92 and has undergone significant major upgrades over the years. Banner is extensively by all faculty, staff and students and includes major modules for: student registration, faculty grading, transcript production, student accounts payable, financial accounting, budget development, purchasing, student financial aid, payroll and human resources. The Banner web interface, locally called WebSMART, is accessed by students and staff to conduct a variety of self-service tasks – such as registration, payment of fees, faculty grading, etc. Banner, now version 7.x, currently uses Oracle Release 10g as its database and is hosted at the District office on IBM AIX servers. Software upgrades, patches and the development new services are the responsibility of the programming team. Mandated state and federal reporting is largely based on information residing in the Banner database.

eMail - ITS maintains a comprehensive unified messaging service for the staff of the Colleges and District Office which includes voicemail, email and fax messaging. The system is based on Microsoft Exchange Server 2003 and Siemens Xpressions products. There are more than 3000 email accounts currently supported by the system. The Exchange environment consists of 2 clustered back-end servers as well as 2 load-balanced front-end servers for high availability. Storage of messages is maintained on an EMC Clarion Storage Area Network (SAN) utilizing RAID technology and redundant hot spare disks for fault tolerance. Data is backed up to high capacity, high-speed tape drives and is stored offsite for disaster recovery. In addition, to reduce and control email spam, we are using Pure Message Spam filter.

Ad Astra – Ad Astra is an interactive scheduling system that helps coordinate assignment of classrooms, schedule resources and events throughout the District. Class schedule information is synchronized with Banner on a real-time basis while events are created by authorized users throughout each College. Ad Astra runs on a Windows XP server and is accessed through a PC client application.

Argos – Argos is a web based reporting tool used to provide users with a variety of reports and data extracts of data from the Banner transactional or data warehouse Oracle databases. It is a product licensed from Evisions, Inc., a

company based in southern California. The application is also intended to provide end-users with the ability to more easily create ad-hoc reports.

FormFusion - FormFusion is another product from Evisions, Inc. It is used to capture output from text-based reports generated from Banner, add and delete data, insert text and graphics, and then distribute the output where and when it is required. It is used to print and/or email a variety of other forms such as purchase orders, student financial aid correspondence, student schedule bills and tax forms (1099s, W2s).

Intellecheck - Intellecheck is used to print paper checks or direct deposit advises for payments made from the accounts payable or the payroll systems. It is another product from Evisions, Inc.

Hyperion - Extensive enrollment statistics are available from the web-based Hyperion dashboards. These academic term-based dashboards compare enrollment statistics against the same period in the semester to the previous year's registration cycle. The historical dashboard takes a snapshot of the enrollment statistics at various key points in time throughout the term. Decision makers throughout the institution access these reports for timely and accurate information throughout the term. The dashboards are built on top of the local data warehouse using the Hyperion Developer Tool.

CCCApply – CCCApply is the system that students use to apply for admission to be able to enroll at any of the three Colleges. The system is hosted by the vendor, XAP Corporation, and applications are downloaded automatically into Banner throughout each day.

Banner Xtender Solutions – Xtender is a comprehensive document imaging system that is tightly integrated with Banner. It allows for users to scan, index and retrieve documents in an efficient manner. Documents can be retrieved directly from Banner or through Xtender's user interface. Student Services, the Financial Aid offices, Purchasing and Finance offices are all very heavy users of document imaging to greatly reduce document storage and filing costs.

ID Management

SARS - SARS Software Products are used at all 3 Colleges to enhance student services for counseling appointments and record keeping. Currently supported products include: SARS-GRID, SARS-CALL, SARS-TRAK and eSARS.

The SARS servers utilize a MS SQL Server database and are maintained and backed up in the data center. Interfaces between SARS and Banner are supported by ITS.

Student Electronic Communication – Since 2007, the District has implemented a series of tools to improve the effectiveness and efficiency of communication with students. Please note that in addition to these tools the District is currently evaluating the potential of implementing a student email system.

GWAMAIL – was launched in summer of 2007. This is a locally developed application that is integrated into Banner. Gwamail allows selected users to send email messages to targeted student populations.

Text Messaging - Students are able to subscribe to receive important campus-wide emergency announcements via text message.

Network Services

To ensure that faculty, students, and staff have access to high-performance and reliable network services such as Internet, voice and email resources, ITS has implemented a redundant network infrastructure across the District.

The District's WAN (Wide Area Network) interconnects three primary sites: Cañada College, Skyline College, and the College of San Mateo, which also includes the District Office. The WAN connection between the 3 sites is an AT&T 1 Gigabit Opt-E-Man circuit. The WAN is implemented in such a way to link the three sites to provide redundant paths in the event that one link is lost.

Internet access is provided at each of the three sites by CENIC (Corporation for Education Network Initiatives in California). The Skyline College and Cañada College sites have individual DS-3 (45 Mbit/sec) connections. The CSM/District Office site is

connected to the Internet via GigaMAN services providing 1 gigabit of bandwidth to the Internet. As part of the network design, the capability exists to implement a manual failover across the WAN in the event one of the CENIC connections should fail for an extended period of time to provide Internet access to the location that is down.

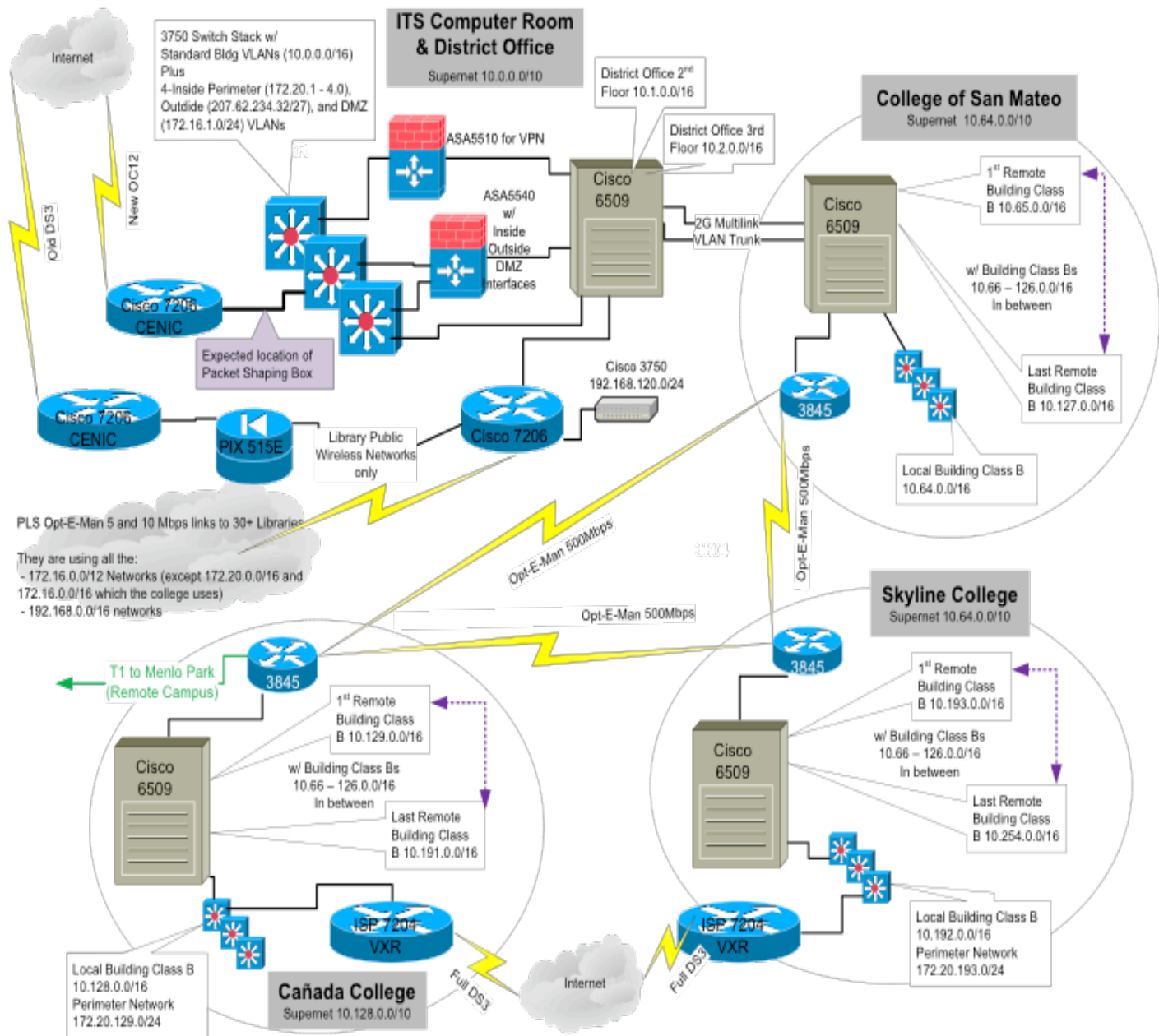
In addition to the wired network, ITS has deployed wireless access points in most high-traffic areas on all three campuses. Additional access points are being added as existing buildings are remodeled or as new facilities are added. There are currently more than 275 wireless access points installed. Utilization of the wireless network is growing significantly.

Network security is provided using a variety of tools and techniques. ITS has secured the internal networks from the Internet by installing Cisco Firewalls at each of the three sites. A DMZ has been established on the CSM/District Office Firewall where most public access resources (Web servers, etc.) are enabled. ITS has deployed VLANs (Virtual Local Area Networks) to further secure and isolate network traffic. There are three primary VLANs in use within the District: Administrative, Instructional, and Public. The Administrative VLAN provides District employees who have appropriate authentication credentials access to Banner and other electronic resources and services within the District. The Instructional VLAN is for labs and classrooms where students use college owned equipment to access instructional resources that are local or on the Internet. The Public VLAN allows campus guests and students with personal network devices Internet access but they are prevented from gaining access to the other District VLANs and secure network resources.

In addition to the three primary VLANs, there are several other unique VLANs in use. Examples of these are the VoIP telephone system, ACAMS security system, Building Management Systems and environmental controls, Bookstores, and KCSM TV and FM radio station. Wireless access to all but the Public VLAN is protected with encryption and secure authentication through the use of certificates.

The District telecommunications system is a Voice Over Internet Protocol (VOIP) telephone system. A Siemens HiPath 4000 (HP4K) provides unified messaging services to approximately 2000 users. Telephones handsets are nearly all IP phones with only a few analog courtesy phones. Other analog services provided by the HP4K include modem lines, fax lines, and alarm lines.

The HP4K is coupled with the Siemens Xpressions 4.0 voicemail system. Together with Microsoft Exchange, voicemail and email are unified, providing two layers of redundancy.



Peninsula Library System

In May 1988, the District joined the Peninsula Library System (PLS) and approved a joint powers agreement that includes all the city and County public libraries in San Mateo County. The primary objective of the District in joining PLS was to automate the libraries of each College, expand the library resources available to students and faculty and benefit from other cooperative activities of the public libraries within the County. This experience has proven to be extremely cost-effective and beneficial to the District and each of the three Colleges.

As authorized by the Board in April 1994, an agreement was executed with PLS which relocated the PLS library computer system, network and their support staff to the District's Department of Information Technology Services (ITS). In this agreement, the District provides PLS office space for their technical staff, environmentally controlled floor space in the computer center, utilities, network and technical support services, computer operations support, and management services.

The District continues to manage, maintain and operate the PLS library circulation system and network environment. PLS staff will continue to be responsible for the applications software, maintenance and support of the Innovative Interfaces library information system and providing technical consulting assistance to the staff of PLS member libraries.

Bond Construction Support Services

ITS has developed and maintains detailed technical network infrastructure and cabling specifications for new construction and remodeling of the College's buildings and classrooms. ITS provides 3 FTE of staff to work directly with the District's CPD (Construction Planning and Development), consultants, and contractors to insure compliance with ITS specifications. In addition, ITS provides technical support for the installation of new computers, network work equipment, and instructional technology. In addition ITS has implemented a financial reporting system specific to support construction.

Link to ITS Standards Document -

- <http://www.smccd.edu/accounts/smccd/departments/facilities/Downloadpage.shtml> Then select *SMCCCD Design Standards and Construction Specifications*
- Link to district wireless "Hot Spots" - <http://www.smccd.edu/accounts/smccd/departments/itservices/services/wireless.shtml>

Web Services

ITS maintains a wide range of online resources for employees and students.

- Faculty & Employee Web Folders - Every staff member, department and service area is given a web folder with 100 MBs of web space to maintain a website or store files. ITS maintains the web server, creates accounts, runs statistics, installs web applications as needed, and assists users with development and maintenance of their web sites. ITS currently supports over 225 active web folders. See: http://www.smccd.edu/accounts/smccd/webpages/website_list.asp

- SharePoint (Web based collaboration tool) – SharePoint Services is included in the Microsoft Office Product Suite and allows users to post and interact with documents via the web. Over 115 Districtwide committees, departments and organizations currently use SharePoint for agendas, minutes, calendars, forms, surveys, forums, picture libraries and more. See: <http://sharepoint.smccd.edu/SITEDIRECTORY>
- SMCCD Portal - Gateway for District employees to access College and District Office web-based services and related web sites. See: <http://smccd.edu/portal>
- Computer Online Resource Project – the CORP website is jointly maintained by both Purchasing/General Services and ITS. The website is used by District employees to access information about the purchase of computer hardware, software, audiovisual equipment, and other ITS supported equipment. See: <http://smccd.edu/corp>
- iTunes University@SMCCD – The District is a participant in Apple Computer’s iTunes University program. iTunes University is a free, hosted service for colleges to post digital information in the form of podcasts. There are currently over 560 podcasts posted on the District site. See: <http://www.smccd.edu/itunesu>
- WebSMART – WebSMART is the web interface to Banner that enables students, faculty and staff to submit grades, request transcripts, update personnel information, and much more. See: <https://websmart.smccd.edu/>
- OmniUpdate – OmniUpdate is a Content Management System for web sites. ITS recently deployed OmniUpdate as a tool for selected end users to maintain their web sites that are hosted on the District’s servers. There are currently 100 active licenses throughout the District.
- WebAccess - WebAccess is a Course Management System that is the District’s implementation of Moodle. WebAccess is hosted offsite by Moodlerooms. Every faculty member that has a class assignment in Banner automatically has a WebAccess course(s) shell created for them. Faculty use of WebAccess ranges from supplemental course information to providing a course completely online. 24X7 support for students is provided by a third party, Presidium, at no cost to the District. Support for faculty is provided by ITS. See: <http://www.smccd.edu/webaccess>
- eCollege is an alternative Course Management System for the delivery of fully online classes. The eCollege CMS is hosted and supported by eCollege. <http://www.college.com/index.learn>

Computer and Media, Service and Support

Desktop computers and media services support for the Colleges and District Office are a centralized ITS service. ITS technicians are physically located on each campus. ITS technicians assist the Colleges with purchasing of technology, cooperatively with the Colleges develops minimum supportable standards for computers, provides regular software updates, maintains an inventory database of technology, and installs new equipment. Service support is provided through a centralized Help Center that uses a web-based tool (<http://www.smccd.edu/accounts/portal/ITSRequest/requestoptions.asp>) to enable users to place repair orders and track their status through completion.

Training

Technology training for District employees is provided by ITS through the Centers for Teaching and Learning. Training is regularly scheduled and provided on each College campus. See: <http://ctlonline.net>

ITS Computer Center

To maintain the reliability of services that are hosted by ITS at the District Office, the District has installed an emergency generator to provide backup electrical power to the building as long as necessary during a power outage.

For fire protection, a state-of—the-art VESDA (Very Early Smoke Detection Apparatus) system has been installed in the Computer Center. In the event of a fire or overheating of equipment the VESDA systematically shuts down the equipment in the computer center and sets off the appropriate warnings.

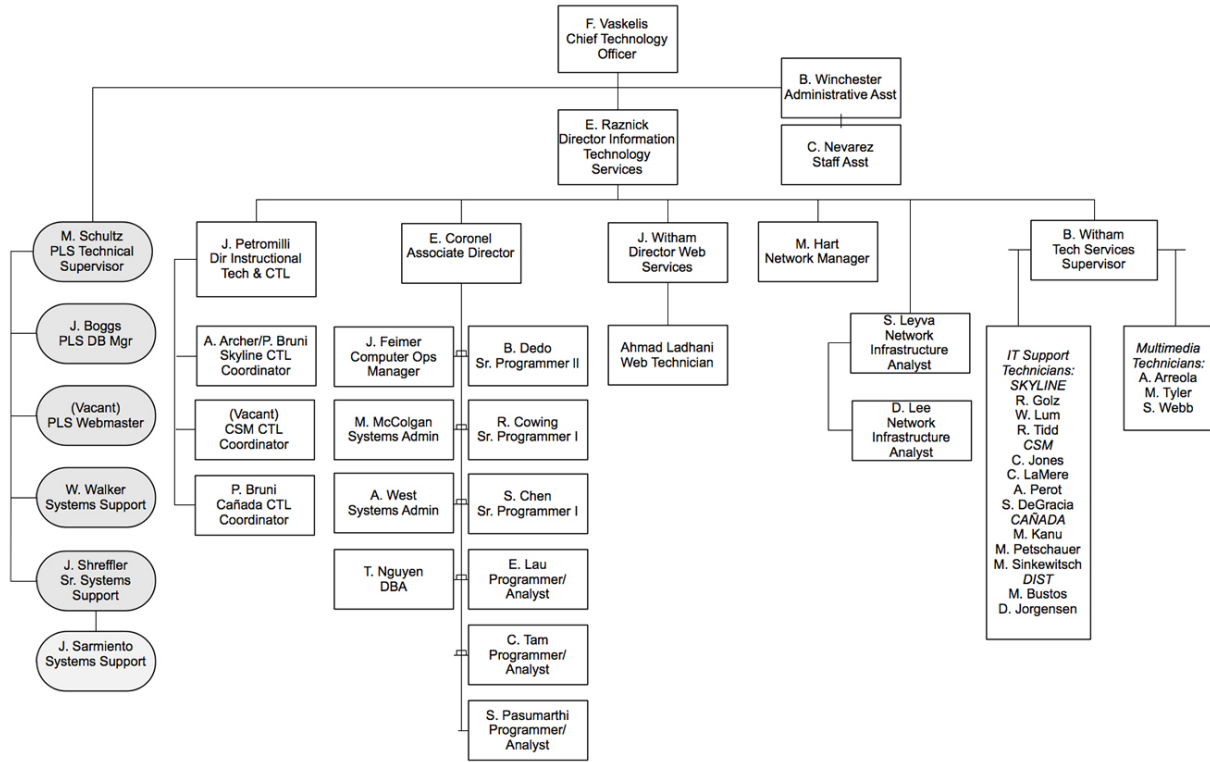
ITS conducts backups for all administrative data stored on its servers on a daily basis. In addition, ITS has in place a comprehensive backup strategy to ensure that all server-based data is recoverable. This data is written to high-density tapes that are stored in an off-site location on a weekly basis.

ITS facilities around the District host the District’s security system, ACAMS. ITS provides the network services required for this system.

Organization

As a Districtwide service organization, the ITS department reports directly to the Chancellor. Please refer to the attached organization chart for more details. There are 35 employees in the ITS department.

**San Mateo Community College District
Information Technology Services
March 2008**



Notes:
- Positions shown in light gray are employees of the Peninsula Library System.

Governance

ITS actively participates with numerous District and College committees. A list of the Committees:

- DEAC:** Distance Education Advisory Committee
- DSSWAG:** Decision Support System Work Advisory Group
- College Technology Advisory Committees
- DITC:** District Instructional Technology Committee
- DRC:** District Research Council
- BAFOG:** Business and Financial Officers Group
- FPO/IT/GS:** Facilities, Planning & Operations
- District Safety and Security Committee
- FAAC:** Financial Aid Advisory Council
- ESC:** Enrollment Services Council
- District Matriculation Committee
- NAG:** Network Advisory Group
- PLS:** Peninsula Library System Council
- Chancellor's Council
- District Management Council

In addition, ITS provides each College with an individual to serve as a Technology Liaison. The Technology Liaison position is responsible for ensuring that the College's administrative and instructional technology infrastructure is maintained to provide peak performance at all times. The Technology Liaison serves as the technology advocate on behalf of the College administration and faculty and represents College needs to ITS.

General Technology Initiatives

Equipment replacement plan for District and College Technology

ITS is working with the Colleges and District Office to develop an equipment replacement plan that will insure that faculty, students, and staff have access technology that meets or exceed District minimum standards. The plan will include a predictable schedule of when equipment needs to be replaced, the projected cost of equipment replacement, and identification of potential budget sources to be determined.

Completion date Summer 2009

The ITS computer support group will implement an online inventory of technology across the District - *ongoing*

ITS working with College Technology Advisory Committees will determine and publish minimum standards for supported technology. These standards will be reviewed annually. These standards will be the basis for determining the equipment replacement schedule – *annually each June*

ITS will generate a report an annual report by College that lists equipment due for replacement in the upcoming year – *annually each January*

Bases on available funding, ITS will work with the Colleges to implement replacement plan.

Develop a recommendation and implement student email

ITS has been tasked to form a committee to research student email options and make a recommendation to the Chancellor's Council for a student email system. In addition, it is anticipated that ITS will be responsible for implementing the selected student email system.

Go live date fall 2008

Form a Districtwide committee with broad representation to review various student email options. This committee will make a recommendation to Chancellor's Council that includes a cost benefit analysis - *June 2008*

Chancellor's Council approves recommendation - *June 2008*

ITS develops an interface to the selected student email system and thoroughly tests system - *July 2008*

ITS implements basic online resources to assist students with using email - *August 2008*

Limited implementation with test group of students - *August 2008*

Go live – *Fall 2008*

Maintain and enhance the use of instructional technology in the District

ITS will continue to monitor educational trends and related research, evaluate emerging hardware and software tools, continue to assess faculty needs, and track student technology trends.

Ongoing

Participate in campus based Technology Advisory Committees - *Ongoing*

Continuously review campus utilization of Smart Classrooms and new technologies that will improve the effectiveness of Smart Classrooms -*Ongoing*

Enhance technology that supports Distance Education - *Ongoing*

Attend relevant conferences and organizational meetings - *Ongoing*

Review literature - *Ongoing*

Disaster Recovery/Business Continuity

A sound disaster recovery / business continuity plan is essential to protect the well being of the institution. It is generally recognized that business continuity planning and disaster recovery planning are vital activities. However, the creation and maintenance of a comprehensive business continuity and disaster recovery plan, is a complex and costly undertaking. ITS has implemented many of the required activities such as: backups, emergency contact lists, restart procedures, backup site, and so on but a more comprehensive, structured approach needs to be completed - *Spring 2009*

Review other colleges plans and structures.

Update current disaster recovery/business continuity documentation

Identify key resources

Maintain the relevance of this technology plan

There are numerous factors that can alter this plan. Changes in state funding, Federal or State mandates, changes in College or District priorities and more, will cause changes in the activities and priorities included in this technology plan. Therefore, ITS representatives will meet quarterly to review and update this technology plan - *Ongoing*

Administrative Systems Initiatives

SunGard California Solutions Center Deliverables

Over the years, ITS has had to develop local solutions and make local modifications to the Banner System in order to support required functionality that the baseline system did not provide. Recently, Sungard created a solutions center to provide some of this functionality to their California customers. ITS will need to implement the Solutions Center's new baseline product while ensuring that the desired local functionality is still being provided -

Completion fall 2009

Compare the Solutions Center Deliverables against local functionality

Determine technical and functional impact

Work with users to assess impact of changes and conduct testing
Implement changes – likely as part of the Banner Release 8 upgrade

ARGOS

Continue with the development of reports and the roll out of the ARGOS reporting system.

Completion - ongoing

90% completed for the financial aid area – only several reports remaining to be completed
Developing several data blocks and reports for the fixed assets area
Replace reports and queries currently being supported by SDA

Security – Banner Access

Need to develop a process to audit active users and user classes to improve Banner security

Completion – end of 2008

Several ARGOS reports have been created to facilitate the review.
ITS will initially review active users
Reports will be developed to work with department managers
Finance needs to review NSF as well as Fund/Org security
Need to develop a process to support password expiration

Banner 8 Upgrade

Sungard is schedule to release version 8 of Banner later this year. It is likely that the upgrade will require the system to be unavailable for several days, thus ITS needs to find a window of opportunity to do this upgrade. The timeline will also be impacted by the impact of the Solutions Center deliverables.

Completion – mid-2009

Evaluate the Solutions Center Impact
Review changes to current functionality
Prepare for technical upgrade
Assess functional impact of upgrade
Prepare the Colleges for the upgrade
Maintain the currency of the hardware that will support Banner 8

CCC Trans

District has agreed to proceed with the State Chancellor's Office initiative for the CCCTRANS project (electronic transcript interchange). This will be a major project and will involve the student services staff from each College -
Completion Spring 2009

Microsoft Exchange 2007 Upgrade

Microsoft has released its newest version of Exchange for email services. ITS has ordered new servers for Exchange 2007 and will migrate all email accounts to Exchange 2007 during the summer. Little to no training of end-users is expected to be needed - *Completion – October 2008*

Identity management

Identity management and privacy concerns continue to be a highly visible and highly sensitive concern for any IT organization. ITS has taken a number of steps to safeguard personal identifiable information. There are additional initiatives that need to be explored to continue to strengthen control over student/faculty/staff ids, user accounts, passwords and data.

Completion – ongoing

Security – Banner access review

Review user agreement and data access policies

Develop programs to educate users

Enrollment Management

Enrollment Management continues to be a critical element for the Colleges. Recruiting, retaining students and growing enrollment is one of the key functions that ITS supports through a number of technologies and services such as WebSMART, GWAMAIL, Emergency Text Messaging, Waitlists, electronic Schedule Bills, Early Alert, Hyperion dashboards, etc. ITS will continue to support and enhance technologies and services to provide Administrators with the necessary tools to connect with people and organizations more effectively - *Ongoing*

Continue to improve WebSMART usability

Evaluate need and benefits for new Portal (e.g. Luminis, iGoogle, etc.)

Develop alternatives to provide students with more on-line services (e.g. Schedule counselor appointments, self-managed education plans, email services, schedule entrance tests, etc.)

Curriculum Development and Course Approval

Curriculum development tends to be a fairly laborious, cumbersome and lengthy process at each of the Colleges. The course approval process tends to be frustrating because often approval forms get lost or misplaced in the process leaving everyone wondering when and where a particular course is. An electronic system with the ability to track where courses approvals are would greatly enhance the process, will reduce frustration and eliminate roadblocks that sometimes discourage instructors from creating new courses *Completion – Spring 2010*

Colleges will continue to evaluate third party products such as CurricUNET

Identify a funding source

ITS will work with the Instruction Offices and the selected vendor for implementation and defining roles for ongoing support.

Online Degree Audit System

An online, self-service web based degree audit system will assist our students in making informed decisions about course selection. As part of the Online Degree Audit System, ITS is also developing a Class Schedule development module. ITS supports the 2008 Board of Trustees goal to complete the Banner degree audit project – *Completion Fall 2009*

Student Portal

Evaluate the opportunities for an online student portal system. *Completion Fall 2009*

- Form a review committee
- Evaluate various solutions
- Identify costs, resource requirements and funding sources

Network Services Initiatives

Infrastructure

Continue to deploy single-mode fiber between campus MPOE (Minimum Point of Entry) and each building and between buildings MDF (Main Distribution Frame) and IDF (Intermediate Distribution Frame) closets to allow for increased network performance - *Ongoing as part of new construction and remodeling*

Replace existing multi-mode fiber with single-mode fiber to improve network performance - *Ongoing as part of new construction and remodeling*

Upgrade network connectivity to all major buildings from 1 gigabit services to 10 gigabit - *Ongoing as part of new construction and remodeling*

Replace Cat 5 cables with Cat 6 or Cat 7 cables to increase network performance to the desktop - *Ongoing as part of new construction and remodeling*

Implement network management tools to improve the ability to troubleshoot and quickly address network performance problems. Cacti and Nagios have been acquired and are being implemented – *completion April 2008*

Network Hardware Technology

Upgrade network switches to Gigabit switches to improve network performance in classrooms and offices - *Ongoing as part of new construction and remodeling*

Keep abreast of new hardware technologies that will benefit the District and College networks. *Ongoing*

Wireless Technology

Continue to install WAPs (Wireless Access Points) throughout the District with the goal of providing a 100% seamless coverage for each College campus. *Ongoing as part of new construction and remodeling*

Stay abreast of new Wireless technologies that will improve performance and extend range of the wireless network. Begin a pilot evaluation of the new wireless standard IEEE 802.11N to determine viability. *Ongoing*

Security

Upgrade the existing wireless VLAN to use WPA-PSK (Wi-Fi Protected Access – Pre-Shared Key) technology - *Fall 2008*

Implement NAC (Network Access Control) technology for all hardwired, wireless network connections.

Provide a system that will allow students and visitors to authenticate before they are able to access any District network resources including the Internet. This is required as part of CALEA - *Fall 2008*

Maintain and improve the performance of the District's telecommunication system

Maintain the performance and enhance the feature set of the district telecommunication system - *Ongoing*

Regularly apply Siemens software upgrades to telephone and voicemail systems. Major upgrades to the HiPath 4000 operating system, the Xpressions voicemail system are planned for this summer – *July 2008*

Apply new firmware upgrades for IP telephone hand sets - *Ongoing*

Provide telephone/voicemail refresher training for District Office and College faculty/staff Spring 2009

Develop a replacement schedule and strategy to replace UPS batteries in MDFs/IDFs – *begin replacement cycle – January 2009*

Implement the FAX server capabilities of the Siemens phone system – *August 2008*

Add air conditioning to District MPOEs

Web Services Initiatives

ITS & Portal Website

ITS is redesigning the ITS & Portal website based on feedback from District faculty & staff that regularly use these sites. Included in the redesign will be the Portal site that is currently running off of SharePoint Services 2003 but will be migrated to SharePoint Portal Server 2007.

Completion Spring 2009

New Web Server

ITS is implementing a new web server to increase performance and expand users storage space to 500 MB.

Completion fall 2008

Upgrade Moodle/WebAccess

Between Spring 2008 and Summer 2008 session ITS will be working with their hosting provider Moodlerooms to upgrade Moodle to version 1.9 and moving to a new data center that will allow 1 million concurrent connections with page loading times under one second.

Completion summer 2008

Web Standards & Usage Policies

Creation of web policy guidelines that can be adopted district wide. These policies will be presented by ITS as recommendations and then vetted through the Districts shared governance process.

Completion Spring 2009

College Website Redesign

ITS is participating in the website redesign process for Skyline College and College of San Mateo. ITS is assisting as a consultant during the process and allocating resources to aid in the migration of sites into the OmniUpdate Content Management System. Skyline intends to launch their new site mid fall of 2008 and CSM by Spring 2009.

Ongoing

Social Networking Sites

ITS is currently exploring the potential of implementing social networking tools. These tools might include portals, community sites and blogs for student to engage and interact with each other outside of their courses.

Fall 2009

Web Schedule of Classes

ITS is in the process of redesigning the web schedule of classes that is available to the public. The new schedule will have enhanced searching capabilities and class descriptions.

FAQs

ITS is trying to streamline the process for students to effectively get accurate college information. Following a model developed by the College of San Mateo, ITS would like to implement a FAQ section for all aspects of student life allowing students to ask questions, those questions are automatically forwarded to the designated responder and a student can also view a knowledge base of responses.

Measured Success & Self Assessment

ITS will be implementing web analytic tools into the district and student web services pages to closely monitor the success of their web initiatives. ITS will also be surveying users who use our web tools about recommendations for improvement.

Fall 2008

ITS Solutions Series

ITS Solutions Series will be composed of quick start guides and podcasts that highlight our current web services and how they can be solutions to the campuses. *Spring 2009*

Bond Construction Support Initiatives**Continue to provide technology consultation services to the Swinerton, CPD, and contractors**

ITS staff will continue to maintain and update the Telecommunications Infrastructure Design Standards document.

Ongoing

Review current District budget replacement for ITS staff resources allocated to support bond related construction

Completed fall 2008

Computer and Media Service and Support Initiatives

Provide specialized training for selected individuals either within the IT department or academic departments to be able to support the various computers and platforms currently in production.

Ongoing

Develop recommended standards for workstations (desktop and laptops) based upon type of usage which will include hardware configurations, operating systems, software tools and applications (such as word processing, spreadsheets, presentation and graphics software, document and file management, multimedia, etc.), security, email, spam, anti-virus, printing capabilities, access to the College intranet, etc. For the instructional area, these standards should be developed with the participation of the faculty to ensure that the technology they need is being included.

Ongoing

Maintain an inventory of desktop hardware and software to track and monitor where desktops are not meeting the minimum standards. These recommended standards should be updated regularly and widely distributed to all department chairs, faculty and staff. As funds are available, replace and upgrade the systems that do not meet the minimum standards. When possible reallocate workstations that are replaced to individuals who have less capable workstations. Encourage ITS leadership to work with College and District administration to establish a technology renewal fund.

Ongoing

Continue to provide Help Desk support to the District. Expand knowledge base of Help Center employees. Explore ways of expanding hours of coverage

Ongoing

Complete the upgrading of District Windows computers to Office 2007

- Evaluate the Solutions Center Impact
- Review changes to current functionality
- Prepare for technical upgrade

Spring 2009

Rollout of Windows Vista to 75% of District Windows based computers

- Evaluate the Solutions Center Impact
- Review changes to current functionality
- Prepare for technical upgrade

Fall 2009

Upgrade District Mac OS computers to Office 2008

- Evaluate the Solutions Center Impact
- Review changes to current functionality
- Prepare for technical upgrade

Spring 2009

Rollout of Mac OS 10.5 to 75% of District Mac based computers

- Evaluate the Solutions Center Impact
- Review changes to current functionality

Prepare for technical upgrade

Fall 2009

Provide Audio/Visual/Computer assistance to faculty in Smart Classrooms by utilizing Information Technology staff and Student Technology Assistants. Develop online tutorials for Smart Classrooms

Ongoing

Training Initiatives

- **Review the relevance of the CTL (Centers for Teaching and Learning), its reporting structure, and staffing. Make recommendation for future.**

The CTL began in fall 1997. While initially it was started with the vision to be a broad-based resource for faculty, over the years, in response to demand and limited staffing, the CTL evolved into a technology training center for faculty and staff. Recently there have been several requests to reassess the CTL's relevance with consideration of broadening its scope beyond technology

- ITS to meet with various campus constituencies to discuss future of the CTL
Summer 2008
- Based on input received campus interviews, ITS to make recommendations for the future of the CTL to District Management Council
Summer 2008
- If the recommendation is to continue the CTL as part of ITS plan, a comprehensive 3-year plan will be developed and vetted through District Shared Governance
Fall 2008

- **Provide training for the DEAC sponsored online teacher training program**

Summer 2008

ITS Facilities Initiatives

- Create a centralized location for all ITS
- Assess computer hardware of technical staff

Continuous Improvement Initiatives

- Establish a program review process for ITS
Spring 2010
- Perform self-evaluations every 3-years
Ongoing

Technology Request Form

In PDF format will replace this page...