
**Grossmont-Cuyamaca Community College District
Technology Plan 2012-17**

April 11, 2012



GROSSMONT-CUYAMACA
COMMUNITY COLLEGE DISTRICT

Technology Plan

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Technology Plan

Grossmont-Cuyamaca Community College District Technology Plan

Overview:

The primary focus of technology at Grossmont-Cuyamaca Community College District is based upon the Strategic Plan and the Educational Master Plan. In particular to provide:

- Access to education systems, services and training to the student, faculty and staff communities.
- Quality administrative, learning and teaching technologies to meet the mission of the Colleges.

The Information Technology Plan identifies major information systems and technology goals for the entire District which includes Cuyamaca College, Grossmont College, District Office and Districtwide services. The plan encompasses the development, management, operation, maintenance, and evaluation of the infrastructure, administrative/enterprise (ERP) information systems, programming, web management, organization and staffing.

Technology planning is a shared and cooperative effort between the two Colleges and the District Office. For technology planning the primary responsibilities are:

- Colleges- support for instruction, staff development, faculty technology, classroom technology, department software, local devices for faculty and staff including computers, mobile devices, printers, scanners and similar equipment
- District Office- ERP (Colleague, IFAS, Sigma) and similar systems, district-wide services such as email, district-wide instructional services such as learning management systems (Blackboard), infrastructure and Internet connectivity

This plan reflects future needs as reflected in college technology plans and needs as expressed through the advisory committee structure.

This plan represents a consensus that facilitates maximization of institutional benefits in pursuit of common and individual college goals.

The Information Technology Plan is a living document. As projects are completed, as new priorities arise and as strategies change the objectives contained in the plan is modified to reflect the needs of Grossmont-Cuyamaca Community College District.

Progress on the Information Technology Plan is assessed regularly and reports made to the Chancellor's Cabinet, District Executive Committee (DEC) the Administrative Technology Advisory Committee (ATAC), the Instructional Technology Advisory Committee (ITAC), Cuyamaca College Instructional Technology Council (ITC), Grossmont College Technology, Teaching and Learning Committee (TTLT) and other appropriate groups such as Cuyamaca's Technology Planning Committee. Furthermore, the District Office conducts annual surveys of services provided by Information Systems and this feedback is incorporated into planning. Additionally, an annual implementation plan is developed and at the end of each year, a progress report is prepared and reviewed. The results are used to help formulate the subsequent annual implementation plan and budget.



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Background:

Portions of the districts computing environment are current and up to date however those systems acquired in the mid-1990s are beginning to show their age.

In 1993, the District conducted a comprehensive assessment of the technology infrastructure at the colleges and throughout the district. Key findings included aging, outmoded and sometimes unsupported technology for network, telephone systems, desktop computers, server hardware and poor administrative systems. Information Technology had been underfunded for several years. In 1994 the Board adopted a policy (BP 6335) to emphasize the importance of continued investments in technology. Furthermore, the District obtained Certificate of Participation funding to pursue the most urgent problems. Much was accomplished with the funding allocated:

- Replacement of the DEC10 computer which was no longer supported by the hardware vendor
- Acquisition of finance, human resources and financial aid systems
- Conversion of the existing, "home grown" student/instructional and degree audit systems from the DEC computer to run on HP Unix equipment
- Creation of a modern fiber optic infrastructure
- Replacement of the Banyan Vines network with a Microsoft based network
- Connection of all classrooms to the network and the Intranet
- Implementation of a new telephone system

To maintain the technology infrastructure as mandated by the Governing Board, an annual allocation for technology replacement was established. This allocation was based on the prior and current technology plans. Using these plans and anticipating future needs a cost projection for technology requirements was developed and approved by the Governing Board.

In 2003, the voters approved Proposition R and a portion was identified to support new and replacement technology. This funding was used to:

- Purchase and install a new student/instructional system
- Purchase and install a new degree audit system
- Upgrade the network
- Implement VMware
- Replace servers
- Expand the wireless network
- Create server rooms at Grossmont College and Cuyamaca College
- Expand the telephone system
- Install infrastructure to connect the new and remodeled buildings.

At that time, the technology replacement funding was transferred to the Prop R funding mechanism and funds were no longer set aside in the general fund.

Today's accelerated pace of change in technology developments, advancements, and capabilities have resulted in increasing expectations on the educational system. At the same



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time, critical issues related to access, governance, reliability, funding, resource allocation, training, maintenance and technical support have arisen that must be addressed.

The Information Systems department (IS) is a service organization. The structure and staffing of IS reflects this philosophy. Furthermore, the department is charged with providing technology services that are reliable, secure, of sufficient speed/capacity and functionally rich to support the mission of Grossmont-Cuyamaca Community College District.

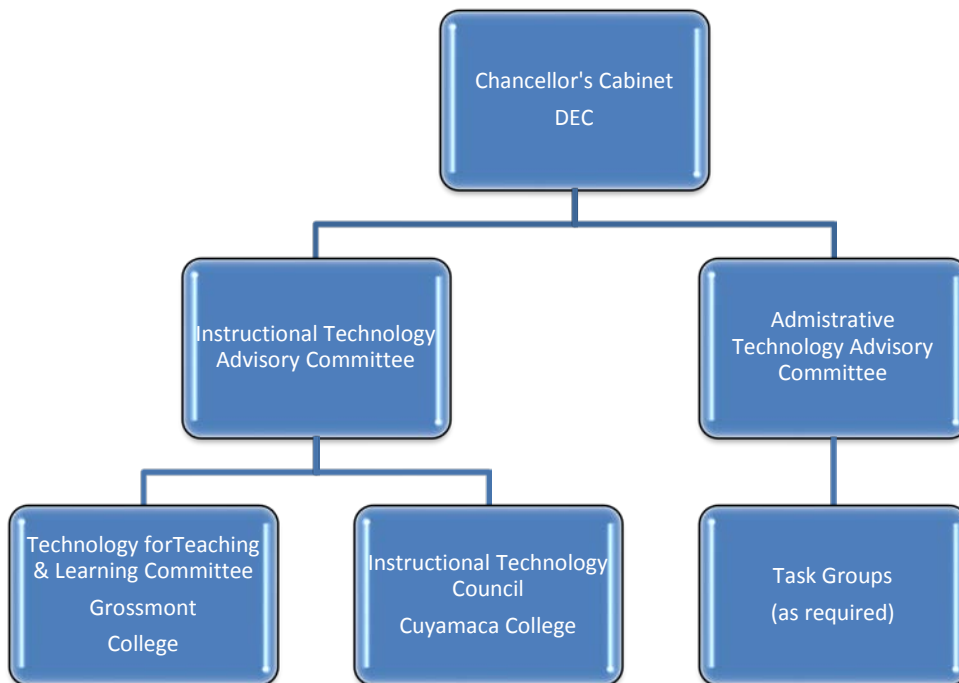


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Advisory Committees:

On matters relating to technology, there are two advisory committees that provide recommendations to The Chancellor's Cabinet, The District Executive Council (DEC) and the Information Systems department. These two committees are the Administrative Technology Advisory Committee (ATAC) and the Instructional Technology Advisory Committee (ITAC). This section supplies the committee descriptions which define the charge, chair, composition and meeting schedules for each.

Furthermore, there are two college committees which provide input, feedback and direction. Grossmont College has the Technology, Teaching and Learning Committee (TTL) which is composed of faculty, administrators, staff and Information Systems representatives. Cuyamaca College has the Instructional Technology Committee (ITC). It has a similar composition.



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Administrative Technology Advisory Committee	
Charge	<ul style="list-style-type: none"> • Provide recommendations to the chancellor’s Cabinet concerning strategic policies and directions for administrative information systems. • Provide recommendations to the Information Systems Department regarding operational priorities and system enhancements. • Recommend policies and priorities related to the selection, implementation, and operation of administrative information systems. • Assist in the development of the Information Technology Plan for administrative information systems. • Provide communication and administrative information system status reporting to constituent groups and existing councils and committees. • Coordinate the work of specially appointed Task Groups as required. • Recommend allocation of Information System Department resources to specific projects.
Composition	<p>Chair- Senior Director, Information Systems</p> <p>Composition:</p> <ul style="list-style-type: none"> • Cuyamaca College representatives appointed by College President • Grossmont College representatives appointed by College President • Vice Chancellor-Business Services and appointed representatives • Vice Chancellor-Human Resources & Administrative Services and appointed representatives • Library/LRC jointly appointed representative • IS staff as required
Meeting Schedule	<ul style="list-style-type: none"> • 3rd Friday of each month



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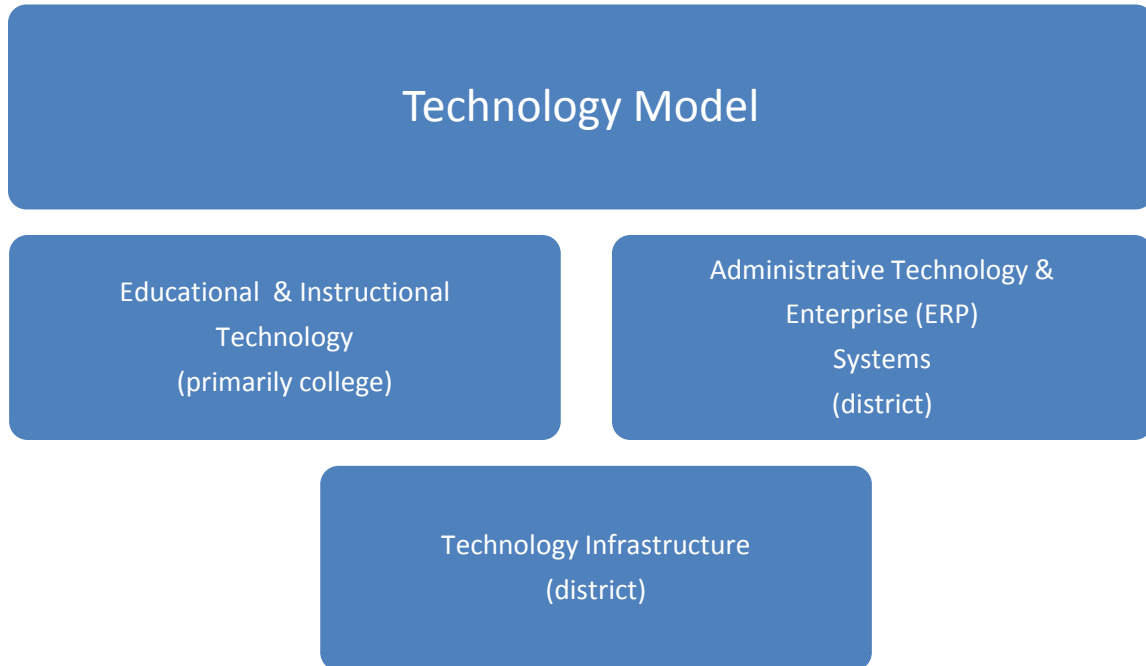
Instructional Technology Advisory Committee	
Charge	<ul style="list-style-type: none"> Provide recommendations to the Chancellor's Cabinet concerning the application of technology for instructional programs Recommend standards and procedures for the implementation of instructional technology throughout the District Recommend priorities to the Information Systems Department for instructional computing support Recommend standards for the acquisition of new instructional software and hardware Establish ad hoc committees to focus on specific topics as required: Internet, network, standards and procedures, computing ethics, software licensing
Composition	<p>Chair- The Chair is selected by the group, and alternates between the two colleges.</p> <ul style="list-style-type: none"> Composition <ul style="list-style-type: none"> Senior Director, Information Systems Representatives of the two college instructional computing committees Cuyamaca College representative appointed by College President Grossmont College representative appointed by College President Cuyamaca College Academic Senate representative Grossmont College Academic Senate representative Information Systems staff, as required
Meeting Schedule	<ul style="list-style-type: none"> Monthly during the academic year or as required.



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Division of Responsibilities:

The responsibilities for technology planning are divided between the three units of the Grossmont-Cuyamaca Community College District. Continued collaboration and cooperation between the three groups is required. The general responsibilities are shown in this figure. Specific responsibilities are also outlined.



College Responsibilities

Under the leadership and direction of the Dean, Learning & Technology Resources at each college, the colleges are responsible for instructional uses of technology, instructional support, staff development and computing devices. This includes the following operational functions:

- Classroom technology and systems
- Support for faculty use of technology
- Help desk services for instructional computing, faculty and labs
- Professional development
- Training
- Currency of equipment for labs, Learning Resource Center, faculty and staff/administrators including: computers, mobile devices, printers, scanners, projectors
- Support of distance learning: faculty support and training, student orientation and support
- With Information Systems, coordinate the purchase of desktop computers, printers and related equipment for students, faculty and staff at the college



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District IS Department Responsibilities

Under the direction of the Senior Director, the District is responsible for technology infrastructure and systems that are used by all three units. This includes:

- Operation and maintenance of enterprise (ERP) and related information systems
 - Colleague- student/instructional system
 - SAM- financial aid system
 - IFAS- financial system
 - IFAS- human resources system
 - Cascade – content management system
 - DARS- degree audit system
 - SARS- appointment scheduling system, early alert
 - SIRSI- library information system
 - ACT- maintenance system
 - Resource 25- scheduling system
 - ImageNow- document imaging system
 - Red Canyon- lab attendance system
- Support for District-wide systems including email, anti-virus software, MS Office, web sites, document imaging
- District wide services for staff and administrators:
 - Training on ERP systems
 - Computer hardware support and repair (including faculty and labs)
 - Office computers and imaging
 - Moves and relocations for staff and administrators
- Technology infrastructure including:
 - Servers
 - Firewalls
 - Wireless network
 - Network switches and routers
 - Fiber and copper cabling for data and telephone
 - Internet connectivity
- Support and maintenance of Learning Management Systems
 - Blackboard
 - Grade book software
- Telephone systems
 - Telephone switch
 - Call accounting
 - Voice mail
- Help Desk services for administrative systems and technology infrastructure
- Operation and maintenance of server rooms:
 - Cuyamaca College
 - Grossmont College
 - District Office
- Data security and back-ups for both college and district resources
- Licensing and maintenance
 - Enterprise (ERP) information systems
 - Learning management systems



Technology Plan

- District wide software agreements
 - Servers
 - Technology infrastructure
 - Telecommunications equipment
- Telecommunications maintenance and connectivity
 - Telephone circuits
 - Internet circuits
 - Long distance
 - Teleconferencing
- Working with the advisory groups, establish standards for computers, printers and standard desktop software.
- Coordinate the purchase of desktop computers, printers and related equipment for staff for use in district services offices.



Technology Plan

Joint Planning:

Planning is done under the overall direction of the Strategic and Educational Master Plans for the colleges and the district.

As a consequence of the division of responsibilities, there are three components of technology planning in the district:

- Grossmont College Technology Plan
- Cuyamaca College Technology Plan
- District Technology Plan

Each of these plans addresses those components of technology according to their responsibilities. The advisory committees listed previously are key in the development of all three plans. These planning processes and plans work in concert.

As part of the plan development, the general goals for technology were presented for comment and discussion in many venues including:

- A joint meeting of the Instructional Technology Advisory Committee (ITAC) and the Administrative Technology Advisory Committee (ATAC).
- Cuyamaca College groups
 - Instructional Council (IC)
 - Administrative Council
 - Meetings with the President and Vice Presidents
- Grossmont College groups
 - Chairs and Coordinators
 - Instructional Administrative Council (IAC)
 - Meetings with President and Vice Presidents
- District Office groups
 - District Services Leadership Council (DSL)
 - Information Systems Department



Technology Plan

Key directions as established by the two colleges are listed below. The District IT Plan includes support for and implementation of directions identified in the college plans as appropriate. The college technology plans goals are listed here.

Grossmont College:

- Support student success through the use of technology in the physical and online classroom.
- Ensure that College resources are available for all students (regardless of race, ethnicity, income, geographical location, or disability) to become technologically literate and achieve their dreams.
- Ensure that the College has the capacity, infrastructure, staffing, and equipment to meet academic and business needs for effective and efficient operations.
- Support faculty, staff and administrators in becoming and staying proficient in the use and integration of technology through Professional Development.
- Ensure that the College is positively involved in collaborations and partnerships which are supportive of technology use and integration.

Cuyamaca College:

- Promote & support instructional efforts to effectively utilize technology to increase student success and retention
- Provide student access to appropriate technology in support of their learning and skill acquisition
- Provide proactive and responsive state of the art technology training opportunities to faculty, staff and administrators
- Support & assist faculty in assuring effective, challenging, engaging, and compliant online instruction
- Assure adequate support staff and hardware & software resources to fully realize and implement the potential of technology to enhance our effectiveness
- Plan and implement long term solutions to technology needs of a growing campus



Technology Plan

Internal Needs and Factors:

- Human Resources (IFAS)- The District currently runs a custom version of the IFAS-HR product. It is insufficient for current needs. It needs to be upgraded to the current version or should be replaced with a more comprehensive system. Issues include:
 - No web self-service for employees- Providing web self-service functions would require extensive custom programming
 - Double entry of time information on IFAS and in the San Diego County Office of Education system.
 - The interface between the HR and Colleague system for faculty and instructional assignments is batch and not dynamic
 - Difficulty in producing faculty hire letters
- Web site development- the District and Intranet web site have been published. The college sites are much larger in size. Given the current staffing levels, additional resources are needed to develop and publish the college sites.
- Need to support research, data warehouse, BRIC initiative and business intelligence.
- Desire to move additional functions such as counseling, testing, orientation and advisement to the web.
- Need for on-line ed plans and degree audit.
- Upgrades for existing applications- There are major upgrades available and needed for current applications including the degree audit system (DARS) and the document imaging system (ImageNow).
- Financial Aid System (Sigma's SAM)- The current system is serving the Financial Aid office well. There are several issues related to this system:
 - The system is not widely installed. Given the continuing consolidation of the ERP system vendors, it is likely that this vendor may not exist in 5-10 years.
 - The interface between SAM and Colleague is at times problematic. The systems sometimes get "out of synch" which has created problems in correctly awarding students.
 - The interface between SAM and IFAS does not allow for deduction of fees owed by students in the Colleague system.
- Need for continuing training on the use of current ERP systems and new releases. Also, training on new technologies as implemented.
- Mobile applications- Mobile applications will be important and technology moves more and more to portable and personal devices. It is not feasible for the District to locally develop mobile applications so choosing software vendors with robust mobile capabilities is important to achieve this.



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- Desire for a curriculum approval system- The current curriculum process is paper based and labor intensive. Both Offices of Academic Affairs desire this capability.
- Staff departures in IT- There have been seven recent retirements in the Information Systems Department including four analyst/programmers. These retirements have had a significant impact on the department's ability to implement new technology and modifications. This has resulted in a primary IS focus on supporting current operations.
- District Services Satisfaction Survey- The annual survey was conducted in seven areas. The overall ratings for the Information Systems department indicate general satisfaction however the scores were lower than in 2010. Significant areas for improvement were identified: responsiveness, communication and the need for increased staffing. These results seem to be largely due to the continuing vacancies in the IS department.
- Telephone system- The current system is over 15 years old. The District has begun to experience issues with the reliability of various components. The foundation of these switches currently in use is 486 type CPUs. The recent building and remodeling projects at both colleges has more than doubled the number of handsets supported. Getting access to qualified repair personnel is also an issue. New technologies such as voice over internet protocol (VOIP) are very common now and far less expensive than several years ago. This key system needs to be replaced. The current system has a "voice paging" function which can be used to perform notifications of emergencies. This feature was never envisioned by the manufacturer as an announcement system. It has proved unreliable. A separate system should be considered.
- Finance System (IFAS) - There is a desire to more fully implement electronic approvals of purchase orders.
- Need for a comprehensive advancement system with integration to the student system.
- Desire to implement a portal and additional web self-service functionality to improve access for students and faculty.
- Integration issues between applications- Several of the administrative systems were selected in 1994. At that time, comprehensive, integrated, enterprise resource planning (ERP) system that met the District's needs were not available. This has resulted in a "best of breed" array reflecting the systems available at that time. This means that instead of native integration between systems, data is shared through periodic (typically daily) file transfers. The number of systems has increased and has the complexity of the interfaces. See diagram X.
- Continuing need to upgrade and replace technology infrastructure: servers, firewalls, network equipment.
- Desire for planning software linking educational planning with budgeting, student learning outcomes and similar initiatives.



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- Collaboration and document sharing- There is a desire to implement Sharepoint or a similar system to share and maintain documents.
- There is a desire to replace the current facilities system, Actware 2000, with a more comprehensive product.
- Both colleges have needs as identified in their technology plans that need to be included overall planning.



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External Trends and Factors:

- Relevant trends as identified in the Districtwide Technology Trends Scan of August 8, 2011.
 - Technology is increasing access to information around the world, fostering increased communication and collaboration, and placing new demands on education.
 - There will be increasing demand for mobile access to learning resources to network and the Internet.
 - Continued growth in and demand for online learning offers students more learning options and puts more demands on faculty.
 - The use of technology will facilitate the development of new disciplines and career opportunities.
 - Technology laces new demands on all college services.
 - Technology offers opportunities to reduce some costs, but budget reductions make it difficult to take full advantage of those opportunities.
- Consolidation of ERP vendors- The ERP vendor landscape has and will likely continue to consolidate. Recently the venture capitalists who own Datatel have announced their plans to purchase SunGard Higher Education. Previously, SunGard spun off their public sector division from their higher education division. IFAS is now owned by SunGard Public Sector. There are few higher education institutions running IFAS.
- There are questions and concerns with the long term viability of current vendors in the higher education market.
- Consolidation of Learning Management System (LMS) vendors- Similarly, the number of LMS vendors has continued to shrink primarily through acquisition. Blackboard has acquired several firms including WebCT and Angel Learning. It is possible that some of the ERP and LMS vendors may merge.
- Planned change in finance and human resources systems by the San Diego County Office of Education. SDCOE has issued an RFP for a new finance and human resources/payroll system. In addition to service K-12 districts, SDCOE serves the Grossmont-Cuyamaca, Southwestern and Miracosta districts. The new system is to be implemented in 2015. In the future, SDCOE may increase the fees it charges to community college districts.
- Difficulty in hiring IT staff- In spite of the current state of the economy, a recent newspaper article and the shared experience of other California Community College underscore the difficulty in hiring qualified staff. This is especially true for hiring Programmer-Analysts. Programming and analysis are not popular courses of study. Creative approaches to recruiting and developing staff will be required.
- Investment and improved web and mobile application services from ERP vendors.
- Increasing utilization of wireless services and applications indicate a need for continued investment in the wireless network to support web apps.



Technology Plan

Vision and Goals:

The primary focus of technology at Grossmont-Cuyamaca Community College District is based upon the Strategic Plan and the Educational Master Plan. In particular the focus is to provide:

- Access to education systems, services and training to the student, faculty and staff communities.
- Quality administrative, learning and teaching technologies to meet the mission of the Colleges.

In addition to providing appropriate organization and planning for technology initiatives, the three major areas of technology in the Colleges are Educational Technology, Administrative Information Systems, and Technology Infrastructure/Support Services. Each area has general goals.

Goals	
Educational Technology	<ul style="list-style-type: none"> • Provide services and technology for faculty and students • Provide learning management systems for web based learning • Support integration of technology into the classroom and distance learning instructional processes • Provide systems to support curriculum and administrative component of instructional processes • Provide appropriate library information systems • Provide technology infrastructure for classroom and web based services
Administrative Technology, Enterprise (ERP) Information Systems	<ul style="list-style-type: none"> • Provide student centered services and support matriculation processes • Provide student, student accounts receivable, financial aid, degree audit, counseling and other student centered systems • Provide web-based services to students, faculty and staff • Provide appropriate functions and technology for "back office" administrative processes and services including finance, human resources, decision support systems,
Technology Infrastructure and Support Services	<ul style="list-style-type: none"> • Provide reliable and secure technology services for voice, data and video services • Maintain currency in technology and infrastructure as appropriate • Provide appropriate off-site and disaster recovery services and systems • Achieve a well-trained and service oriented IS organization to meet the growing demand for support services



Technology Plan

The five year vision of technology for the District has several key components.

Areas of Focus
<ul style="list-style-type: none">• Integrated ERP system providing comprehensive services• Web based services and mobile applications• Vibrant learning management system• Infrastructure excellence• Cloud computing as appropriate

To achieve the goals and vision described, an annual action plan is developed each year. Additionally, a five year cost estimate has been developed and is included as Appendix B.



Technology Plan

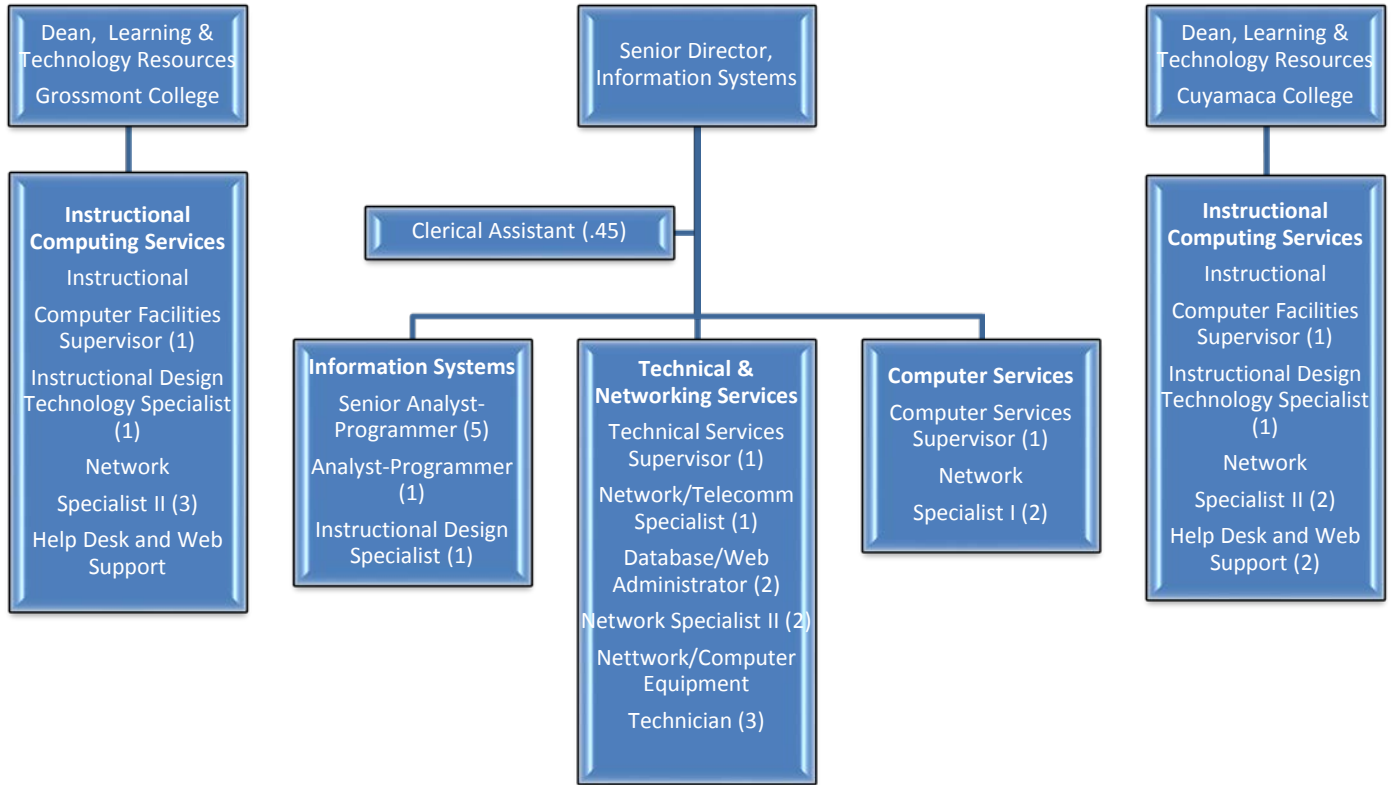
Appendix A

Technology Support Organization

Grossmont

District

Cuyamaca



Technology Plan

Appendix B

Cost Estimates for the Technology Plan 2012 to 2017

New Technology

This includes: telephone system, new servers, continued creation of the backup data center, new technologies, and redundant circuitry.

Estimate: \$3-5 million

Replacement of Existing Technology

This includes replacement of existing technology for: servers, switches, firewalls, wireless network, fiber optic and cabling networks.

Estimate: \$3-4 million

New Systems

This includes: enhancement/replacement of learning management systems (LMS), acquisition and implementation of an integrated administrative information system (ERP) for student, finance, human resources/payroll and financial aid, enhancements to existing systems such as Colleague, DARS, business intelligence/data warehouse, Advancement, a portal system, new systems to support student success, planning and other emerging technologies.

Estimate: \$4-6 million

Grand Total: \$10-15 million

Notes

1. Maintenance not included.
2. Costs are estimates and will need further analysis and requests for proposals.
3. Personal computers, printers, etc. are funded by the three organization units of the District.

