

Technology Plan, 2010 – 2016

COLLEGE OF

MARIN

TECHNOLOGY PLANNING COMMITTEE, 2009 – 2010

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CONTENTS

Technology Planning Committee, 2009 – 2010.....	2
Introduction.....	4
Vision Statement.....	4
Philosophy.....	4
Key Terms.....	5
Technology Planning Process, 2007 – 2010.....	6
Strategic Plan 2009 – 2012, College Priority #3.....	8
Strategic Initiatives With Action Steps.....	9
Criteria For Prioritizing Technology Strategic Initiatives.....	14
Priorities.....	14

INTRODUCTION

Since the development of the Information Technology Plan 2004-2007, the college has made substantial upgrades to its technology resources to improve institutional operations and effectiveness, upgrade available services to students, and provide faculty with tools to effectively deliver instructional content. The college has replaced its administrative data system and support programs, upgraded its web site and related services, added limited wireless connectivity, created an online testing center, provided a course management system (WebCT/Blackboard), and implemented a number of programs to facilitate the matriculation process for students.

Maintaining the currency and effectiveness of computers, systems, and services is negatively impacted by the fiscal crisis in California. It is imperative, therefore, that college leaders think strategically as they decide how best technology can help us address our educational goals. Technology planning is a complex effort, requiring the evaluation, purchase, and maintenance of highly sophisticated hardware and software; the coordinated efforts of individuals across various disciplines and units in order to effectively implement the technologies; and ongoing training for both technical specialists and end-users. A good technology plan must be more than a list of items to purchase or people to hire. It must also be a tactical initiative coordinated throughout the college to identify critical needs. For these reasons, the college identified the development of this plan as one of the three highest priorities in the Strategic Plan 2009-2012.

VISION STATEMENT

College of Marin will have a well integrated, state-of-the-art information technology environment that sustains and enhances teaching and learning, supports the college's mission and educational master plan, and provides for the communication of timely and accurate information to increase the effectiveness of all of the college's operations and services.

PHILOSOPHY

1. Technological resources should be made available to support excellent instruction and to facilitate and enhance effective student learning and student development. Technology should serve, not drive the college in its efforts to fulfill its mission and address the goals of the Educational Master Plan. (Success)
2. Students, faculty, and staff should have access to technology that improves their ability to contribute in their respective roles in the institution. (Access)
3. Students, faculty, and staff should have ongoing access to technology training and education. (Staff/student development)
4. Technology planning should include cost effective acquisition and allocation of ongoing resources to support infrastructure, hardware, and software. (Institutional effectiveness)

KEY TERMS

As used here, the term technology refers to electronic or information technology that supports functions and operations college-wide, including some specialized technology unique to and shared by particular disciplines or operations. Included in this definition are office technologies such as personal computers, printers, the telephone system, the email system, and standard office computer applications; instructional technologies such as computer labs, electronic media, and classroom management systems; student support technologies that facilitate orientation, assessment, counseling, placement, enrollment, and articulation; and administrative technology systems that support the administrative and business requirements of the district.

Since the Technology Plan is intended to implement Priority #3 of the college's Strategic Plan 2009-2012, it employs the same major planning terms. The strategic initiatives are broad implementation goals, which can be divided into more detailed and concrete action steps. The action steps we have listed are only samples, to give the reader a sense of what will be required in order to complete the strategic initiative. They will need to be developed in more detail in the next phase of the development of the plan.

Like the Strategic Plan, this plan envisions that each action step will have a champion. This is the individual, typically an administrator, who is charged with ensuring that the action steps are being addressed in an effective manner.

We have divided the strategic initiatives into two broad categories. Those labeled *support of student learning* address the needs of programs and services that directly serve students. Those labeled *support of college's technological infrastructure* also support student learning, of course, but do so indirectly. Obviously, there is overlap between these two categories, but we want to emphasize their functional differences and strongly emphasize the importance of each to the other.

Finally, we have sought to identify the types and mix of resources that each initiative is likely to require: policies, hardware, software, training, and staffing. As used here, the term policy includes procedures, planning activities, administrative regulations, and protocols.

TECHNOLOGY PLANNING PROCESS, 2007 – 2010

August 2007- October 2008

The Technology Planning Committee, created as an official governance committee to replace the ad hoc Technology Committee, undertakes a review of the Information Technology Plan 2004 – 2007 developed by the earlier committee with the help of the Strata Information Group (SIG.)

The following individuals served on the ad hoc Technology Committee in 2007: Ingrid Schreck (Chair), Bonnie Borenstein, Steve Dodson, Harriet Eskildsen, John Hinds, Kathleen Kirkpatrick, Nancy Kutcher, Jim Locke, Mike Lewis, Deb Mindel, Rene Prado, Rainer Wachalovsky, and Derek Wilson. The following individuals served on the Technology Planning Committee from August 2007-May 2008: Victoria Coad (Chair), Susan Andrien, Jim Arnold, Jeff Cady, Win Cottle (through Feb 2009), Frank Crosby, Steve Dodson, Harriet Eskildsen, Joseph Giroux, John Gudmundsson, Andy Haber, Michael Irvine, and Michael Ransom. The following individuals served on the Technology Planning Committee from August 2008-May 2010: Michael Irvine (Chair), Bob Balestreri, Jeff Cady (through May 2009), Win Cottle, Frank Crosby, Alice Dieli, Harriet Eskildsen, Ratnakar Nanavaty (through November 2008), Marshall Northcott, Dong Nguyen (through December 2009), Nathaniel Parker (through May 2009), and Kathleen Smyth.

October 2008

The Technology Planning Committee (TPC) begins an update of the college's computer inventory.

November 2008

After beginning work to update an older computer replacement plan, TPC is directed by the Institutional Planning Committee to begin preparing a college wide technology plan.

January 2009

IPC receives the new Computer Replacement Plan but asks for more detailed data from the completed computer inventory, as well as from program reviews.

February 2009

IPC approves the Computer Replacement plan and sends it to the Budget Committee for consideration. With encouragement from IPC, TPC continues to work on a new technology plan, reviewing the 2004 – 2007 Plan to determine what should be retained.

March 2009

IPC directs TPC to develop the Technology Plan 2010 – 2016 according to the schedule listed in the Strategic Plan Actions steps in conjunction with the Educational Master Plan.

April 2009

Changes in Program Review enable TPC to gather better information about technology needs. The committee discusses the inclusion of policies, standards, and procedures in the new plan.

August 2009

TPC begins to examine technology plans from other colleges. The interim Director of Planning, Research, and Institutional Effectiveness (PRIE) is brought on board as an advisor to the committee.

September 2009

The Program Review Committee implements TPC recommended changes in the Program Review template.

IPC and the Budget Committee are eliminated and replaced by the newly formed Planning, Resource, and Allocation Committee (PRAC), the new parent committee for TPC.

October 2009

TPC assesses the extent to which 2004 – 07 Information Technology Plan recommendations are completed, and determines that except for the establishment of the ERP software, action has not been taken on the recommendations. TPC explores the use of graphic depictions of Technology Plan recommendations, and selects the Skyline College technology plan as a good model.

November 2009

TPC develops a timeline for plan preparation, vision, and philosophy statements, and a template for developing goals and action steps. The PRIE Director serves as resource to the committee and assists in the editing of the plan. TPC determines that there should be a public period during which the academic community at large can look at the progress made on the plan.

January 2010

The Committee modifies the organization of the plan to create continuity with the previous plan and to reflect the organization of the institutional Strategic Plan.

February 2010

TPC refines the plan's organization, including a matrix with categorical descriptors, and settles on the terms "Strategic Initiatives" and "Action Plans" to parallel the Strategic Plan. Criteria for determining priorities are developed. It also proposes steps to finalize the plan by April of 2010.

March 4, 2010

A draft introduction describing the features and history of the plan is written and approved by the committee.

March 9, 2010

The plan, 2010 – 2016 Technology Plan, Phase 1 is submitted to PRAC.

April 6, 2010

The final version of the plan, which includes prioritized initiatives and detailed action steps, is submitted to PRAC for final approval.

STRATEGIC PLAN 2009 – 2012, COLLEGE PRIORITY #3

Prepare, implement, and evaluate a college technology plan that identifies the policies, hardware, software, and training needed to improve student, staff, and faculty access to the effective use of technology in instruction. (EMP Recommendation College Systems 3)

Strategic Objective 3.1: Champion: Vice President of College Operations

Prepare a College of Marin Technology Plan 2010 – 2016 that identifies the current needed improvements in policies, hardware, software, and training.

Action Step 3.1.1

A. Analyze the status of the 2004 – 2007 College of Marin Technology Plan and other relevant data to identify the remaining unmet needs related to technology policies, hardware, software, and training.

B. Responsible Party: Vice President of College Operations

C. Timeline: October 2009

Action Step 3.1.2

A. Compile the technology requests from all prior year Program Reviews.

B. Responsible Party: Vice President of College Operations

C. Timeline: October 2009

Action Step 3.1.3

A. Collaborate with on-campus IT staff to develop a list of needed improvements to hardware and software.

B. Responsible Party: Vice President of College Operations

C. Timeline: December 2009

Action Step 3.1.4

A. Integrate the lists prepared in Action Steps 3.1.1, 3.1.2, and 3.1.3 and prioritize the needs identified by these two college resources, with special attention to the hardware and software needed to meet the College of Marin Educational Master Plan 2009 – 2019 recommendation related to distance education (Student Access 3).

B. Responsible Party: Vice President of College Operations

C. Timeline: December 2009

Action Step 3.1.5

A. Prepare a College of Marin Technology Plan 2010 – 2016 that identifies the current needed improvements in policies, hardware, software, and training.

B. Responsible Party: Vice President of College Operations

C. Timeline: Draft to be distributed college-wide: March 15, 2010; Completed document: May 1, 2010.

STRATEGIC INITIATIVES WITH ACTION STEPS

	CATEGORY	STRATEGIC INITIATIVE	EXAMPLES OF POSSIBLE ACTION STEPS	POLICY	HARDWARE	SOFTWARE	TRAINING	STAFFING
1	SUPPORT OF STUDENT LEARNING	Increase technology capabilities in labs and classrooms.	1.1 Provide effective and current equipment and software in technology-dependent labs and classrooms as requested during the Program Review process.		X	X		
			1.2 Develop and maintain a priority list of new smart classrooms and classrooms to be converted to "smart" classrooms.	X				
			1.3 Provide adequate personnel to maintain and staff labs and smart classrooms.				X	X
			1.4 Provide effective online resources (e.g. software, training) needed to support and supplement instruction offered in both traditional and online formats.			X	X	X
			1.5 Develop standardized plan for the digitization of necessary instructional materials.	X	X	X	X	X
			CHAMPION:					
2	SUPPORT OF STUDENT LEARNING	Create and maintain an inventory of instructional technology resources to assist in setting priorities for technology purchases.	2.1 Collect inventory data through Program Review and publish the instructional inventory annually as part of the update of the Technology Plan. (See Strategic Initiative 8.)	X				
			CHAMPION:					
3	SUPPORT OF STUDENT LEARNING	Develop and maintain a comprehensive Distance Education program that includes hybrid and online classes.	3.1 Define Distance Education, including hybrid and online courses for College of Marin.	X				
			3.2 Formalize policy for converting and implementing Distance Education within College of Marin courses.	X				

	CATEGORY	STRATEGIC INITIATIVE	EXAMPLES OF POSSIBLE ACTION STEPS	POLICY	HARDWARE	SOFTWARE	TRAINING	STAFFING
			3.3 Develop a set of best practices for Distance Education including hybrid and online courses.	X				
			3.4 Insure Distance Education program including hybrid and online courses is supported with appropriate hardware, software, and training.		X	X	X	X
			CHAMPION:					
4	SUPPORT OF STUDENT LEARNING	Maintain an ongoing training program for instructional staff & faculty on instructional systems and applications.	4.1 Coordinate an instructional training program with the institutional training program described below. (See Strategic Initiative 12.)	X			X	X
			CHAMPION:					
5	SUPPORT OF STUDENT LEARNING	Expand the technology resources available to students, and publicize the resources and access procedures.	5.1 Create an online help desk for students.			X	X	X
			5.2 Expand wireless capability at both campuses.		X	X	X	X
			5.3 Provide tech workshops for students as part of orientation.				X	X
			CHAMPION:					
6	SUPPORT OF STUDENT LEARNING	Ensure that assisted technology is accessible and complies with Section 508 Standards of the Rehabilitation Act.	6.1 Utilize faculty and staff who possess assisted technology expertise to: <ul style="list-style-type: none"> a. Ensure compliance with Section 508 Standards in the purchase of accessible computers and peripherals, software, and other types of electronic equipment, b. Remove access barriers to the college website and other college-wide communications media, and c. Develop and implement best practices for faculty in delivering accessible instruction. 	X				X
			CHAMPION:					

	CATEGORY	STRATEGIC INITIATIVE	EXAMPLES OF POSSIBLE ACTION STEPS	POLICY	HARDWARE	SOFTWARE	TRAINING	STAFFING
7	SUPPORT OF COLLEGE'S TECHNOLOGICAL INFRASTRUCTURE	Identify and implement organizational and procedural changes to increase effectiveness and responsiveness.	7.1 Review the recommendations of the <u>2004-2007 Information and Technology Plan</u> having to do with organizational structure and governance.	X				
			7.2 Implement high priority changes.				X	X
			CHAMPION:					
8	SUPPORT OF COLLEGE'S TECHNOLOGICAL INFRASTRUCTURE	Establish an effective technology governance structure.	8.1 Refine and clarify the charge, purpose, role, responsibility, membership, and operations of the Technology Planning Committee.	X				
			8.2 Provide annual reports that assess progress made in the implementation of the Technology Plan and projects for future implementation.	X				
			8.3 Develop an administrative procedure for the acquisition and implementation of technology.	X				
			8.4 Determine and publish minimum standards for supported technologies and review annually.	X				
			CHAMPION:					
9	SUPPORT OF COLLEGE'S TECHNOLOGICAL INFRASTRUCTURE	Use our current technology to conduct business process analysis to improve operations.	9.1 Identify and prioritize technological opportunities for streamlining workflow and business routine in processes such as faculty contract hiring, student refunds, reduction of paper use, class schedule analysis, and enrollment management tools, and technological processes associated with matriculation functions.	X				
			9.2 Provide adequate personnel to maintain critical administrative functions.	X				X
			CHAMPION:					

	CATEGORY	STRATEGIC INITIATIVE	EXAMPLES OF POSSIBLE ACTION STEPS	POLICY	HARDWARE	SOFTWARE	TRAINING	STAFFING
10	SUPPORT OF COLLEGE'S TECHNOLOGICAL INFRASTRUCTURE	Implement plans to upgrade, improve, maintain, and reassign technology systems and equipment.	10.1 Fund and implement the College's approved Computer Replacement Plan.	X	X	X		X
			10.2 Develop, fund, and implement ongoing replacement strategies and policies for instructional as well as non-instructional software licensing and maintenance contracts, electronic subscriptions and computer peripherals.	X	X	X		
			CHAMPION:					
11	SUPPORT OF COLLEGE'S TECHNOLOGICAL INFRASTRUCTURE	Continue to expand the capabilities and security of the college network and improve access for both instruction and administrative services.	11.1 Evaluate and submit recommendations for replacement of outdated or obsolete network support hardware and software, including servers, routers, switches, and wireless access points.	X				
			11.2 Research and submit recommendations for campus-wide wireless deployment.	X				
			11.3 Enhance the protection of the district information and assure office productivity and data security through antivirus, encryption, and other tools.			X	X	X
			11.4 Implement high priority recommendations.		X	X	X	X
			CHAMPION:					
12	SUPPORT OF COLLEGE'S TECHNOLOGICAL INFRASTRUCTURE	Maintain an ongoing training program for all staff & faculty on <u>institutional</u> systems and applications.	12.1 Develop an orientation program that includes best practices for maintaining security and preserving data.	X			X	X
			12.2 Coordinate institutional training program with the instructional training program described in Strategic Initiative 4.	X				
			CHAMPION:					

	CATEGORY	STRATEGIC INITIATIVE	EXAMPLES OF POSSIBLE ACTION STEPS	POLICY	HARDWARE	SOFTWARE	TRAINING	STAFFING
13	SUPPORT OF COLLEGE'S TECHNOLOGICAL INFRASTRUCTURE	Improve access to financial and budget information for managers and department chairs.	13.1 Perform a needs analysis.	X				
			13.2 Prioritize and research impact on operational process and available resources.	X				
			13.3 Implement high priority improvements.			X	X	X
			CHAMPION:					
14	SUPPORT OF COLLEGE'S TECHNOLOGICAL INFRASTRUCTURE	Improve access to class schedule analysis tools and enrollment management tools for instructional managers and department chairs.	14.1 Perform a needs analysis.	X				
			14.2 Prioritize and research impact on operational process and available resources.	X				
			14.3 Implement high priority improvements.			X	X	
			CHAMPION:					
15	SUPPORT OF COLLEGE'S TECHNOLOGICAL INFRASTRUCTURE	Provide adequate and properly trained staff to enable the IT Help Desk to provide more responsive services to faculty and staff.	15.1 Provide adequate staffing during all class hours.				X	X
			15.2 Provide ongoing training for IT staff to answer questions and solve problems such as hardware support and maintenance, MyCOM accessibility, print capabilities, etc.				X	X
			CHAMPION:					
16	SUPPORT OF COLLEGE'S TECHNOLOGICAL INFRASTRUCTURE	Develop a phased approach for migrating all district PCs running Windows XP to Windows 7 before XP end-of-life (2012).	16.1 Identify PCs that do not meet minimum specifications for upgrade.	X				
			16.2 Prioritize computer upgrades where possible and replacement where necessary.	X				
			16.3 Replace and upgrade computers.			X	X	X
			CHAMPION:					
17	SUPPORT OF COLLEGE'S TECHNOLOGICAL INFRASTRUCTURE	Improve and expand telephone and voice messaging services to faculty and staff.	17.1 Replace or enhance the existing telephone and voice mail system to comply with FCC Enhanced 911 regulations as directed by Homeland Security.		X		X	X
			CHAMPION:					

CRITERIA FOR PRIORITIZING TECHNOLOGY STRATEGIC INITIATIVES

The Technology Planning Committee used the broad criteria outlined below to develop the priority levels for the Technology Strategic Initiatives we have identified. In addition, in order to impose a context on our deliberations, the Committee assumed a maximum allocation of \$500,000 per year for technology needs. *This is neither a request, nor an expectation.* Everyone understands the severe funding problems that the college faces. However, introducing this admittedly arbitrary number helped us remain, if not realistic, at least restrained in our optimism as we worked through this process.

- **GLOBAL LEVEL CRITERIA**
 - Consistent with Educational Master Plan
 - Advances elements of the Strategic Plan
 - Advances elements of the Technology Plan
 - Responds to tactical necessity or opportunity (e.g. new requirements, new funding)
- **PROGRAM LEVEL CRITERIA**
 - Consistent with relevant program review priorities
 - Addresses the needs of high demand programs or services
 - Demonstrates reasonable balance of costs to benefits
 - Demonstrates high likelihood of effective implementation and use

PRIORITIES

It is the position of the Technology Planning Committee, that all of the initiatives identified in this plan need to be systematically addressed if College of Marin is to maintain currency in its use of technology and provide high quality programs and services to its students. However, from a tactical perspective, we have identified six initiatives that we believe should be addressed as soon as possible.

Several of these initiatives deal with policy and planning issues that do not require an immediate commitment of financial resources. These are #1.2 that addresses the development of a priority list for smart classrooms; #3.1, 3.2, and 3.3 that address systematically addressing the development of distance education; #4.1 and 12.2, that address the development of formal plans for technology training and professional development focusing on both instructional and institutional applications; and #8.1, that addresses refining and clarifying the charge and responsibilities of the Technology Planning Committee *The college should immediately commence working on all of these “policy” issues that do not require additional funding.*

The following recommendations focusing on six initiatives are the product of extensive discussion within the Technology Planning Committee, based on the criteria outlined on page 5.

Strategic Initiative 3

While the college provides a number of hybrid and online courses, it has only recently begun to develop a formal plan for distance education. Policies and guidelines need to be developed regarding the size and scope of distance offerings, as well as a professional development program so that instructors can improve their effectiveness in the online environment.

Estimated costs for this Initiative are: \$7,000 Blackboard CMS upgrade annually (+ \$9,500 current annual cost), Faculty Resource Facilitator (three units for next 3 semesters), IT support for CMS integration with Banner which requires reallocation of staff time, and training costs of \$7,000 for @one training.

Recommendation: That 3.1, 3.2 and 3.3 be implemented, that Blackboard CMS and the Faculty Resource Facilitator be maintained, that funding be added for CMS/Banner integration, and that additional training be added as the distance education program matures and funds allow.

Strategic Initiative 6

Section 508 of the Federal Rehabilitation Act requires that assisted technology is accessible to all students, including those with disabilities, using approved and licensed computers, peripherals, software, and other types of electronic equipment. The college needs to confirm that it is complying with Section 508 requirements.

Estimated costs: Unknown pending a review of accessibility issues.

Recommendation: That the college review its practices regarding the use of assisted technology to ensure it is in compliance with Section 508.

Strategic Initiative 9

This initiative addresses significant challenges and opportunities in the essential business of running the college. It is clear that resources will need to be devoted to technological infrastructure over the next several years. As a tactical priority, the Committee focused on the technology needs associated with student support services. Two such needs were deemed crucial: improved academic advising, and improved events scheduling.

Academic advising can be significantly improved with the utilization of DegreeWorks for which we have already purchased the software license. DegreeWorks is an integrated add-on to BANNER Student and allows students to spend less time deciphering degree requirements and more time pursuing their academic goals. Robust academic planning tools and real-time counseling capabilities help advisors provide consistent and meaningful direction to students.

Estimated Costs:

- Required server to operate DegreeWorks = \$10,000
- Project manager (consultant) to implement DegreeWorks and set-up initial tables and rules = \$10,000
- One full-time classified Degree Works specialist to maintain existing tables and act as primary articulation officer for the College= \$60,000 per year.
- One full-time Evaluations Specialist position to evaluate incoming transcripts and enter equivalencies into student academic history = \$65,000 per year.
- Advisor and staff training = \$3,000
- Total Cost: Up to \$148,000 initial investment with possible \$125,000 annual cost

The other identified need, the scheduling of special events, can be managed by R-25 (Resource 25), is a campus-wide, multi-user system that directly interfaces with the new Student Information System (BANNER) to maintain facility synchronization for efficient use of space. Resource 25 includes robust reporting capabilities and a powerful web component. The flexibility and scope of R25 functionality allows users to precisely manage space and other resources at the activity level and to structure events to meet scheduling needs and goals. We have a current license for this software.

Estimated costs: \$3,000 one time, for training

Recommendation: *That the college fund the utilization of R-25 in 2009-10 or 2010-11, by reallocating existing resources, and that the purchase of a server for the utilization of DegreeWorks is given high priority when resources become available.*

Strategic Initiative 10

This initiative addresses the need to maintain keep current in terms of technology equipment software, licenses, and subscriptions.

10.1 Computers: In February of 2009 the college approved a district-wide computer replacement plan, but it was not implemented. (The plan is located at <http://www.marin.edu/tech/index.htm>) We have approximately 1,447 instructional and non-instructional computers collectively at both College of Marin campuses. The 2009 – 2010 program review indicated the need for 178 additional or replacement instructional computers at a cost of \$250,000 and 34 additional or

replacement non-instructional computers at a cost of \$42,000. The computer replacement plan recommended a five-year replacement cycle for computers.

Estimated costs: \$266,271 annually using the current specified computer models.

Recommendation: That the college explore ways to reallocate funds or identify new funds to support either a five-year replacement cycle or one of longer duration, if necessary, so that the college does not fall further behind. Moreover, a regular allocation for computer replacement should be established each year as part of the budget development.

10.2: Software licensing, maintenance contracts, subscriptions, and peripherals: In the 2009 – 2010 program review, there were requests for replacement instructional software, which total \$110,000. Like computers, these items need to be addressed each year. In order to create strategies for replacement of software, the college must first identify what it now has, where it has it, and what is being requested. The college currently owns TrackIt, a software program that can identify the hardware and software at every computer at the college. Information regarding peripherals such as printer drivers can also gathered by TrackIt. Implementing this tool will require about 40 hours of system administration and about a half hour of technical time to set up each of approximately 500 computers.

Information about electronic subscriptions, etc. can be gathered from Program Review and budget expenditures.

Estimated costs: 40 hours of system administration, 250 hours of set-up and training for Track It. Ongoing software costs to be determined.

Recommendation: That once needs are assessed and organized, pricing and maintenance agreements must be negotiated with vendors, a plan for acquisition of these materials must be created, and a funding plan developed.

Strategic Initiative 11

This initiative addresses the need to maintain and improve the “backbone” of the technological infrastructure of the college.

11.1: Network switches have approximately an eight-year life span, but also have a lifetime warranty. Cost is incurred when replacement switches are required because of lack of speed, inability to handle enough information, or the need to add more access points. The cost to maintain adequate switches is difficult to predict. A network monitoring system, costing approximately \$30,000, would help the college track the efficiency of the switches. This system would require staff to consistently monitor the system. New bond-funded buildings will have

new switches. It will be our task to replace, as we can, those outdated switches in the old buildings.

Servers provide access to the local and global networks. We have approximately 64 servers throughout our campuses. Total cost to replace those servers will be at least \$300,000, as many are \$12,000 each. Server maintenance and replacement as well as the need for additional servers for more storage are imminent and some funds must also be reallocated for this purpose.

Estimated costs: Costs for replacement switches and servers are unknown; \$30,000 initial cost plus a permanent full time staff position for a switch monitoring system.

11.2: Wireless access is a high priority, particularly for students. Buildings funded by bond funds will have wireless access. Deployment in the remaining buildings will need to be completed over time.

Estimated cost: Approximately \$800 – \$1,600 (installed) per 10,000 square feet of building space.

Recommendation: *That in 2010-11, the college seeks reallocated funds for switch and server replacement/maintenance and in the future seek new one-time funding for a switch monitoring system, and that it develop a plan providing wireless access over a multi-year period.*

11.3: Security of information is an on-going concern and the college must continue its efforts in providing the tools and services to this end.

Estimated cost: Sustained funding for this purpose.

Recommendation: *We must make sure that funds are not reallocated to the detriment of this purpose.*

Strategic Initiative 17

The phone and voice mail systems here at the college have lived on way past their prime. This initiative addresses the need to replace/upgrade the existing telephone and voice mail system, which will greatly enhance communication, as well as bring the college into compliance with FCC, enhanced 911 security regulations. This would allow emergency services, during a “911” call, to know the exact location of the caller. Currently a call is only identified as “College of Marin”

Estimated costs: \$55,000 to replace the voice mail system. Phone system: cost to be determined.

Recommendation: *That the phone voice mail system be replaced/ upgraded to provide more efficient service communications, especially in emergency situations at the college.*