

GAVILAN  COLLEGE

*Technology Master Plan
2009 - 2014*

*Supporting Educational Excellence Today
with Tomorrow's Technology in Mind*



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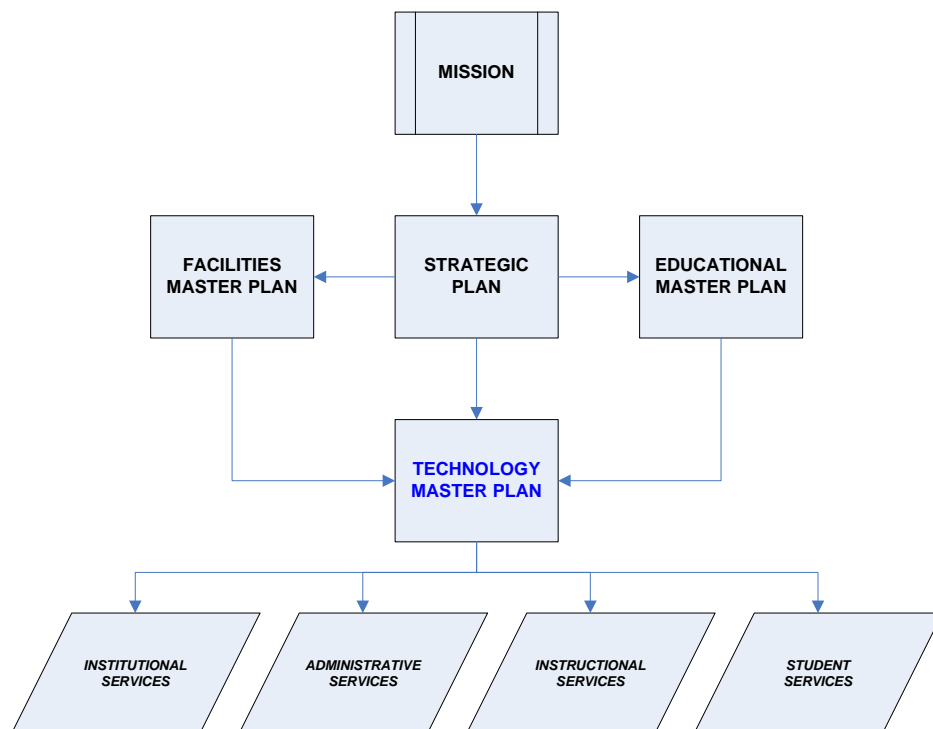
Executive Summary

Gavilan Community College faces many challenges in serving today's students:

- A. Managing constrained resources
- B. Providing ubiquitous access to all students
- C. Keeping current on today's technology in order to ensure that Gavilan students will be prepared to enter the workforce.
- D. Properly integrating new technologies into the teaching and learning environment, and ensuring the faculty and staff are properly trained, and programs are developed to assist the faculty in making this transition.
- E. Applying appropriate technology in support of Student and Administrative Services



It is recognized that funding resources are limited, and Gavilan College must make critical decisions as to how to best use the resources available. The purpose of the Gavilan College Technology Plan is to provide a prioritization list that the College can utilize when making strategic technology and resource allocation decisions. This list is comprised of the highest priority initiatives, as approved by the various committees formed to develop technology priorities. It identifies the requirements necessary to support Gavilan's **Planning Process**:



Mission:



In an environment that nurtures creativity and intellectual curiosity, Gavilan College serves the community by providing a high-quality learning experience which prepares students for transfer, technical and public service careers, lifelong learning and participation in a diverse global society. The basis for each and every plan developed by the college is to provide the guidelines necessary to achieve Gavilan College's mission.

<http://www.gavilan.edu/aboutUs.html>

Strategic Plan:

Gavilan College's Strategic Plan is a three-year plan that expresses the mission of the College, its core values, and specific objectives that support the core values. The Strategic Plan then becomes the central focus for Education, Technology, and Facilities planning.

Educational Master Plan:

Gavilan College's Educational Master Plan is designed to provide a foundation upon which the instructional and support service needs of the college can be addressed and met. It takes the objectives and activities of the Strategic Plan and applies learning outcomes to them.

<http://www.gavilan.edu/master/>

Facilities Master Plan:

Gavilan College's Facilities Master Plan's key initiative is to develop multi-functional instructional spaces that can be used for many different learning environments (i.e., lecture, laboratory, distance learning, etc.) and meet the future diverse growth needs of the campus based on the Strategic Plan. The Measure-E Bond, passed March 2004, allowed for a new Bond Facilities Master Plan to be developed that identifies, organizes, plans and records the capital-outlay to bring the campus into alignment with the goals identified in the other related Plans (see Planning Process chart on Page 4).

<http://www.gavilan.edu/facilities/> - January 9th, 2001)

<http://www.gavilan.edu/bond/brp/brp.html> - February 14th, 2006)

This Technology Master Plan is meant to be a practical outline for identifying and developing initiatives that will be implemented to best support the overall vision of the campus. This plan takes a more strategic approach (as opposed to operational approach) to outlining and identifying the technology initiatives necessary to support the campus. The Plan is not meant to be a document that has a "completion date." Rather, it is to be a living document that will be reviewed and updated *annually*. The Technology Committee is responsible for the ongoing review and updating of this Plan. Major revisions of this document will be performed as necessary based on major revisions of dependent documents, such as the Educational Master Plan, Strategic Plan, Facilities Master Plan, and/or Mission.

Acknowledgements

The planning and revision process for the Technology Master Plan involved the time and collaboration of many faculty and staff at Gavilan College. Content Development Workshops were held with campus groups, coupled with e-mail surveys being distributed, to solicit feedback, and one-on-one meetings were carried out with those individuals in Leadership roles to discuss their assigned Initiatives. The following are noted for their participation:

Academic Senate
Associated Student Body
Dean of Technical & Public Services
Department Chairs
Digital Media Program Director
Distance Learning Coordinator
District Technology Committee
DRC
Head Librarian
Institutional Researcher
MIS
President's Counsel
Staff Resource Coordinator
Student Services
Vice President of Student Services
Vice President of Administrative Services



Purpose Statement

The purpose of the Technology Master Plan is to prioritize initiatives developed in this process and identify and clarify the technology resources needed to successfully implement these initiatives. This Plan will assist in the strategic decision making process for the District. This Plan was developed to be strategic in nature and, therefore, many of the initiatives involve performing feasibility studies, continuously researching and evaluating developments in technology as they apply to the College through the District Technology Committee and other appropriate groups, and investigating cost-effective improvements to the campus technology infrastructure for inclusion into the annual update of this Plan.

Funding issues were considered to be beyond the purview of this Plan. It is recommended that funding strategies be developed through collaborative discussion between relevant parties.

Planning Assumptions

- A. All initiatives contained in the Plan were developed to directly support the visionary educational goals of the College, as articulated in the Strategic Plan, Educational Master Plan, and Facilities Master Plan.
- B. The Technology Master Plan is one of the District's key strategic plans and plays a critical role in the success of the Strategic Plan, Educational Master Plan, Facilities Master Plan, and ultimately the College Mission.
- C. As the detailed design and planning phases are implemented through the Technology Master Plan, the Management Information Systems (MIS) department will identify technology issues and initiatives to be incorporated into relevant plans.
- D. A significant number of demands for technology-related support will compete for limited funding. Consequently, the use of resources allocated to technology will be driven by needs, which are identified and prioritized in this plan as the first step of a selection process involving appropriate campus committees and decision-makers.



Technology Master Plan Evolution



The Gavilan College Technology Plan represents the development, refinement, and culmination of technology goals and objectives set by the College in the 1990s. During the 1990s and into the new millennium, the College laid an infrastructure, built a network, purchased appropriate hardware and software, built computer laboratories, provided multiple levels of staff and student training, augmented facilities, and launched technology-based instructional programs. Members of the Technology Committee led technology planning for the Educational Master Plan, and, in 2001, began, with the help of planning consultants, the process of gathering information and identifying goals for the Gavilan College Technology Master Plan 2002-2005.

As the Technology Master Plan 2002-2005 went through a series of phases, there were various levels of involvement from the campus community. Preparatory work included student, staff, and faculty surveys and meetings with deans, leadership teams, administrators, user groups, standing committees, and technical staff. These steps were performed to ensure proper understanding of the resources, needs, and desires of the entire campus community.

At the beginning stages of this Plan, there were over 100 key initiatives that involved or impacted technology. These initiatives came out of the Educational Master Plan, Facilities Master Plan, Telecommunication Technology Infrastructure Program (TTIP), including Total Cost of Ownership guidelines, and the State Chancellor's Office guidelines for Disabled Student Programs and Services. Initially these initiatives were prioritized as high, medium and low, and technology resources were identified for the highest priority initiatives. In Fall 2002, the Technology Advisory Committee reevaluated the initiatives and priorities based on what had been accomplished in the intervening months and created a Technology Master Plan 2002-2005 draft with a leaner set of priorities. This draft was presented to the full Technology Committee and then to other appropriate campus bodies (the Academic Senate, Department Chairs, the President's Council) for review, discussion, and modification. The result of that process is a final list of initiatives that contains the highest priorities related to the technology needs of the Institution, Instructors, Administrators, and Students. This constituted the main content of the Technology Master Plan 2002-2005. Several years later, on the heels of revisions to the Strategic Plan and Mission, as well as a complete Educational Master Plan and new Bond Facilities Master Plan, a 2nd Edition of the Technology Master Plan was developed with the assistance of a planning/consulting firm and based on a similar process of review, discussion, and modification (identifying completed, in process, and new initiatives) through feedback from the District Technology Committee and appropriate campus bodies. This revised list will be used by appropriate campus organizations to make funding and other decisions for approving technology related projects.



Since 2005, the District Technology Committee has continued to update many items listed in the Technology Master Plan. The major accomplishments during the last several years include: completion of the major modules of the ERP system (on time and under budget); construction of a new data center; relocation of the MIS department; replacement of phone and voice mail systems with current technologies; and initial implementation of wireless access throughout the campus. Many additional initiatives have been completed campus wide and are listed below.

Completed Initiatives (2006-2008)

The Technology Master Plan 2006-2008 produced results in that the following initiatives were successfully achieved:

- Developed Alternate Media Guidelines in accordance with the Chancellor's Office to meet the legal obligation of making instructional materials and other information resources.
- Implemented on-line and Web registration.
- Added appropriate equipment to digital media classroom/lab.
- Developed a statement of appropriate use for MACs and PCs. See Appendix E.
- Provided adequate facilities for existing and future MIS personnel and equipment (New Data Center completed in 2007).
- Implemented the integrated system for student records, general ledger, human resources, inventory control, and accounting. Payroll will continue at the County Office of Education.
- Provided distance learning support for student services, library/resources, and technical assistance (ex: streaming video server infrastructure w/kiosk).
- Added remote access for faculty and staff (ex: e-mail)
- Upgraded the existing PBX phone system including a new voicemail system (overcome telephone deficiency on campus).
- Implemented and published security standards for network and equipment. (See attachment E-4)
- Establish standards for the Web and network management. (See attachments E-3 & E-4)
- Allocated server space for faculty and staff data backups with Active Directory.
- Replaced the HP 3000 system hardware due to end of life. (Student Services, HR, Financials, etc.) in 2006.
- Provided financial aid/scholarship applicants and recipients with web and/or telephone access to information regarding the status of their application and award; student access to transfer information (integrated with ERP system via self service Banner).
- Implemented a network login environment using Active Directory.
- Developed security standards for network and equipment. (See attachment E-4)

Initiative Organization

The Technology Master Plan encompasses all functional areas of the campus, and as such, the Initiatives stated herein vary greatly in their content and purpose. In order to successfully manage the Technology Master Plan, a hierarchy was developed. This hierarchy accomplishes the following objectives: (1) assigns Leadership to individuals who are competent in their respective Initiatives, thus providing the necessary structure for follow-up and implementation; (2) assigns Grouping of Initiatives to define the scope of what is covered and how they interrelate to one another; (3) assigns Prioritization so as resources and/or funding are made available, the proper Initiatives can be addressed based on their level of criticality [1 – most critical, 5 – least critical]; (4) assigns Status to each Initiative for tracking progress. This hierarchy is defined below:

Leadership:

Director – Disability Resource Center

- Computer Assistive Technology

Dean – Career Technical Education (Vocational & Technical Services)

- Digital Media Program

Head Librarian

- Electronic Library
- Information Competency

MIS

- Infrastructure (power, network, AC, security, telephones)
- MIS Environment, Staffing, & Technical Support
- Centralized Technology Upgrades & Purchasing (hardware & software)
- Research & Development
- Computer Labs
- Multimedia Classrooms

Staff Resource Coordinator

- Training
- Faculty Resource Center
- Gavilan Channel 18
- Video Conferencing

Vice President – Administrative Services

- Administrative Systems
- Environmental Conditions

Vice President – Student Services

- Student Services
- Computer-Assisted Student Placement
- Computerized Early Alert
- Distance Learning

- Electronic Data Collection

Grouping:

- Student Services* – those Initiatives that directly address the students
- Instructional Services* – those Initiatives that directly address the instructors
- Administrative Services* – those Initiatives that directly address faculty & staff (not including instructors)
- Institutional Services* – those Initiatives that directly embody the campus as a whole

Prioritization:

- [1] *Safety* – designed to address personal safety in regard to environmental management system (EMS)
- [2] *Security* – designed to address security (data and human) issues
- [3] *Compliance* – various government laws and regulations demand specific compliance such as Section 508, FERPA, and OSHA. However, these regulations may or may not be safety or security issues where a compliance issue is either safety or security it should be so ranked.
- [4] *Cost Savings* – designed to provide long-term savings (ROI)
- [5] *Education* – designed to specifically enhance the educational experience
- [6] *Operations* – addresses functionality or items not falling under priorities noted above

Status:

- Planning* – assigned to a Committee; feasibility study; solution research
- Budget* – request for quote; budget allocation request
- Acquisition* – purchase order completed; items and/or services ordered
- Implementation* – configuration, installation, and/or construction underway; technical writing
- Completed* – the Initiative has been put into practice; ongoing maintenance begins



Gavilan Community College Initiatives STUDENT SERVICES

INITIATIVE	PRIORITIZATION	ESTIMATED COST	FUNDING SOURCE	STATUS
LEADERSHIP: Director - Disability Resource Center				
Establish a comprehensive Section 508 policy for computer access technology purchases and support.	Compliance	Committee Time		Standards are developed; policies need to be updated
Increase the number of accessible stations well above and beyond the minimum percentage until every station affords access to students with disabilities campus-wide and off-site locations. With current technologies, we must centralize applications management and access.	Compliance	\$30,000	GF	Implementation
Develop and adopt specific Distance Education guidelines with state guidelines in mind to guarantee that students with disabilities will be able to access Gavilan's distance learning programs.	Compliance	Committee Time		Planning
Modernize technology in the classroom to support the delivery of instruction and to ensure 508 compliance by providing appropriate technology to enable deaf students to communicate by real-time captioning.	Compliance		GF & Grants	Planning
LEADERSHIP: Vice President - Student Services				
Implement an I.D. system with the bar codes, biometrics, and/or magnetic stripes for access to services and facilities and automated capture of attendance information (and integrate with ERP).	Security and Cost Savings	\$100,000	GF	Planning
Ensure that all placement test information is promptly available on the campus database (integration with the new ERP system).	Cost Savings	0	GF	Software being developed.
Use technology to provide an alternate way for students to access services such as health services, tutoring, assessment, etc. (including offsite locations).	Cost Savings	\$10,000	GF, Grants	Planning
Implement CCCApply functionality for Admission and Records and Financial Aid.	Cost Savings	\$10,000	Grants	Planning
Acquire software to enable counselors to develop student educational plans and conduct degree/certificate audits (integrate with new ERP system).	Education	\$150,000	Grant	Implementation scheduled 2009
Provide an "online community", such as e-mail or web newsgroups for students to interact with each other, staff, and/or faculty.	Education	Staff Time	Measure E	Testing development of Luminis portal
Evaluate all new and existing instructional software and systems to determine their effectiveness.	Education	Staff Time	GF, State Funding	Planning

Provide computer support to the student assessment process as appropriate.	Education	\$10,000	GF, Grant	Planning
Establish a system to improve retention and support achievement & inform counselors promptly when students are flagged in the early alert process.	Education	\$15,000	GF	Testing development of Luminis portal
Expand and refine systematic and regular data screening to ensure accuracy; validation system (w/ERP).	Operations	\$50,000	GF	Planning
Develop a means to identify and contact students who drop out of classes and do not return (integrate with ERP system).	Operations	\$5,000	GF	Planning
Develop a system of prioritizing requests for fixes and enhancements to the student database systems (integrate with new ERP system).	Operations	Committee Time	GF	Planning

Gavilan Community College Initiatives INSTRUCTIONAL SERVICES

INITIATIVE	PRIORITIZATION	ESTIMATED COST	FUNDING SOURCE	STATUS
LEADERSHIP: Dean - Liberal Arts & Sciences				
Modernize the audio-visual systems in the classrooms.	Education		Measure E	Campus Renovation
Create links between the television production classes, the television acting classes, the digital media classes, other appropriate classes and the Gavilan Channel.	Operations	Staff Time		Implementation
Explore and expand campus, regional, and national collaboration.	Operations	Staff Time		Planning
Cultivate underwriters for Gavilan Channel programming.	Operations	Staff Time		Planning
LEADERSHIP: Head Librarian				
Update the Library Technology Plan in accordance with state requirements.	Education	Staff Time		Planning
LEADERSHIP: Staff Resource Coordinator				
Provide training, awareness and support for faculty who want to engage in distance learning instruction.	Education	Staff Time	GF	Implementation is on-going
Microsoft Powerpoint training for Instructors, focusing on enhancing the learning experience through more interactive teaching methods.	Education	Staff Time	GF	Implementation is on-going
Look at options for off-site communications & shared instruction via video conferencing.	Education	\$50,000	Grant	Planning
Provide for regular staffing of the Faculty Resource Center.	Education and Operations	\$20,000	GF	Budget
Define the mission and goals for the Faculty Resource Center.	Operations	Staff Time		Planning

Gavilan Community College Initiatives ADMINISTRATIVE SERVICES

INITIATIVE	PRIORITIZATION	ESTIMATED COST	FUNDING SOURCE	STATUS
LEADERSHIP: Vice President - Administrative Services				
Provide adequate staffing support and library security.	Safety Security	\$45,000	Measure E	Planning
Implement a document process allowing for electronic signatures. Implement Banner Workflow	Operations Cost Savings	\$50,000	Measure E	Implementation during 2009-2010
Evaluate use of all new and existing facilities, upgrade equipment, and implement improvements.	Education	\$200,000	Measure E	Implementation in progress
Identify computer staff needs and recruit/hire as appropriate to meet the state TCO guidelines (<i>Improve response times and support for campus users. Note: See TCO Section, Appendix B, for detail on technical support initiatives.</i>)	Operations		GF	Some staff were hired, but still short of TCO standards
Continue funding for IT contract personnel with cost-effective measures in place.	Operations	\$150,000	GF/Measure E	Ongoing costs depend upon the changing needs.
Establish minimum technology competency levels for staff and faculty.	Operations	Committee Time	GF	Training is available but levels have not been established.
Include the minimum technical competencies that are needed to do the job in the job announcement and apply those competencies during candidate selection.	Operations	Staff Time	GF	Planning
Complete library climate control project.	Operations	\$600,000	Measure E	Budget
Provide air conditioning for computer laboratories and classrooms.	Operations	\$1,500,000-\$2,000,000	Measure E	In process
Acquire outdoor electronic message boards to display pertinent information about the college, placed in strategic areas for public viewing.	Operations			
Implement flat-screen "message boards" throughout the campus as a method to keep students, staff, & faculty abreast of events and important information.	Operations			In process

Gavilan Community College Initiatives INSTITUTIONAL SERVICES

INITIATIVE	PRIORITIZATION	ESTIMATED COST	FUNDING SOURCE	STATUS
LEADERSHIP: MIS				
Prepare a disaster recovery strategy. Provide backup and recovery hardware and software to provide network services following a disaster.	Security Operations	Staff Time \$100,000	GF	Planning & Implementation
Add a remote desktop management system.	Cost Savings	\$75,000	GF	Planning
Create a network backbone loop for redundancy.	Cost Savings and Operations	\$50,000	Measure E	Implementation
Upgrade to a voice-over-IP (VOIP) system.	Cost Savings and Operations		GF or Grant	Planning
Restructure the current wireless implementation to offer a secure, campus-wide wireless network.	Cost Savings and Operations	\$80,000	Grant	In process
Purchase a network management system for server monitoring.	Cost Savings and Operations	\$50,000	GF	Implementation
Develop a technology resource clearing house for monitoring and coordinating equipment and site license purchases and maintain an up-to-date list of college equipment holdings so that sharing, exchange, and redistribution of resources can be easily coordinated (Asset Management System).	Cost Savings Operations	\$15,000 (50%)	GF	Planning
Ongoing implementation of the technology renewal program.	Operations Education	\$900-\$1200/laptop	Measure E	Acquisition
Provide funding for infrastructure, including spare parts, memory upgrades, data drops, phone drops and new equipment.	Cost Savings and Operations	<u>\$100,000</u>	Measure E	Budget & Acquisition
Implement routine, scheduled Maintenance for network hardware.	Cost Savings and Operations	\$50,000 per year	GF	Planning
Provide training program for MIS technicians on computer hardware & software being utilized on campus.	Cost Savings and Operations	Staff Time \$20,000	GF	Ongoing
Develop a formal MIS/end-user education & communication plan.	Cost Savings and Operations	Staff Time	GF	Ongoing
Ensure all faculty & staff members have computers to match level of need, including laptops as appropriate.	Operations	\$900-\$1200/laptop	GF	Planning

Provide new audio/visual technologies and conferencing center	Operations	\$50,000	GF or Grant	Planning
Provide 24 x 7 operations and maintenance of the technology infrastructure.	Operations	\$90,000	GF	Budget
Establish information technology guidelines and procedures.	Operations	Staff Time	GF	Ongoing
Perform periodic security assessments.	Operations	Staff Time	GF	Ongoing

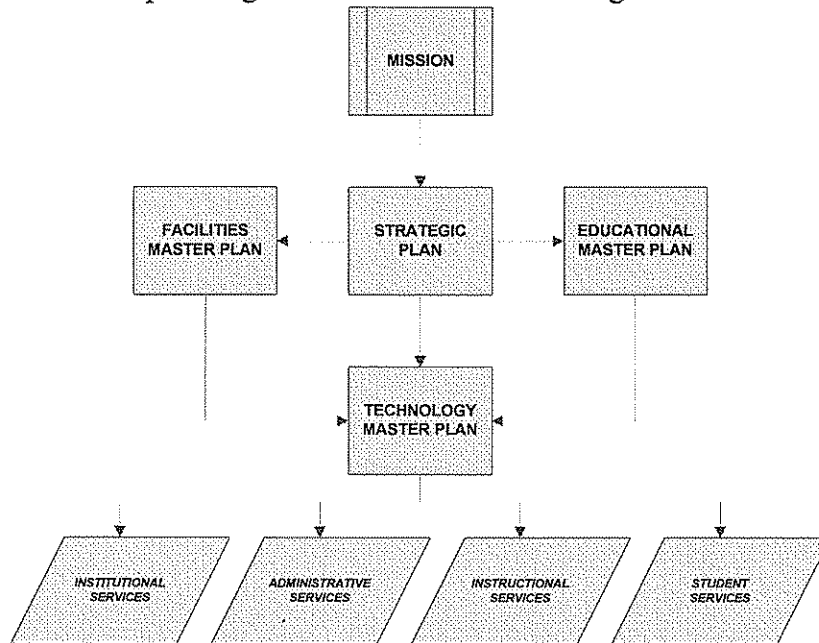
Appendices

- A. Technology Master Plan Survey
- B. Statewide TCO Technical Support Guideline Comparison
- C. Online References
- D. Smart Classroom Prioritization List February 4, 2003
- E. Standards for Hardware, Software, the Web, Network Management and Wireless
- F. Desktop Computer Replacement Plan
- G. 2002-2005 Completed Initiatives

Appendix A: Technology Master Plan Survey

SURVEY REPORT

In order to acquire feedback as to the technology needs of the campus for inclusion into future updates of this Plan, the following survey has been provided. To assist in this process, the following general questions have been provided to stimulate thought in this matter, as well as the workflow of the document planning structure for Gavilan College:



Please note that this survey is not meant to be exhaustive, so feel free to provide additional feedback as necessary. All information is to be submitted in e-mail format to help@gavilan.edu. The Gavilan College technology staff would like to thank you in advance for your time and participation in this endeavor!

- 1) What technologies would enhance the student educational experience on campus?
- 2) What technologies would make daily administrative tasks more efficient?
- 3) What technologies would assist in better instructor-student interaction?
- 4) What technologies would be beneficial for preparing students better for the workforce?
- 5) What technologies would appeal most to potential students deciding on a college?
- 6) What technologies would help staff members collaborate most effectively?

Appendix B: Statewide TCO Technical Support Guideline Comparison

Overview:

The California Community College Chancellor's Office (CCCCO) has developed a Statewide Technology Plan commonly referred to as Technology II. A key section of the CCCCCO Technology II Plan addresses the fact that "When educational institutions acquire computer hardware and software, they generally do so without factoring in the costs to support the equipment and infrastructure. As a result, there is often a lack of support to maintain, repair and improve performance of the equipment, as well as a lack of staff for training faculty, staff, and students. This creates delays and inefficient use."¹

The concept of determining the full cost of ownership (one-time and on-going costs, support, training, and replacement) is called Total Cost of Ownership (TCO).

Gartner Group and the Telecommunications and Technology Advisory Committee (TTAC) worked to determine the appropriate TCO model for the community college environment. The purpose of this model is to serve as a guide for developing a baseline minimum requirement for Information Technology TCO. TTAC will review this model annually to determine adjustments to it as appropriate.

As an example of TCO, the cost estimate for a PC is \$3,506 per PC. This cost is comprised of the following model²:

TCO Components	Cost	Percent of TCO Cost
Hardware and software	\$1,794	51%
Systems management support	762	22%
End user support	417	12%
Development support	148	4%
Communications support	60	2%
Training	325	9%
Total	\$3,506	100%

Therefore, as a college purchases a computer (i.e., \$1,794), they should also budget for and allocate an additional \$1,712 to support that computer over its expected useful life of 3 years. For more information on the TCO model, please refer to the CCC Technology II Plan.

The TCO initiative model is categorized into four "Computing" areas: Student, Faculty, Administrative and Classified Staff, and Support Baselines (staffing). These areas identify the recommended minimum computing hardware, software, and support levels that Community Colleges should be providing.

¹CCCCO Tech. II Plan; Cost to Implement the Technology II Strategic Plan, pp. 21.

²CCCCO Tech. II Plan; Cost to Implement the Technology II Strategic Plan, pp. 23.

Because technical support is such a critical area to this campus, the TCO section of the Technology Plan will focus on the number of technical staff required to provide adequate support to the Gavilan campus community. In order for Gavilan's Philosophy and Vision Statements, as well as its Educational Goals to be successful, technical support issues must be addressed.

The chart on the following page summarizes the technical support staff guidelines, and compares this guideline with current Gavilan College technical support levels.

Statewide TCO Minimum Technical Support Baseline Initiatives

The following Chart summarized the statewide-recommended minimum baseline staffing requirements under which a Community College should be operating. The intent of this chart is to show the comparison of the minimum recommended levels of support staffing with current levels of Gavilan Community College. The chart can be summarized to reflect that compared to the statewide minimum operating baseline recommendations, Gavilan College has a technical support staffing shortfall of approximately 21.5 technical support positions.

*FTE(S or F) = Full-Time Equivalent; S = Staff, F = Faculty

TCO Support Staff	State Guidelines	Gavilan (State Recommended)	Gavilan Actual	Gavilan Actual as of 5/09	Gavilan Deficit
Computer Technician	1 Tech/ 125 computers	8	3	4	-4
Computer lab Monitor	1 Lab Monitor/75 Computers	10	0	0	-10
Network Engineer/ Technician	1 Network Eng./ 500 Computers	2	1 (contract labor)	1 (contract labor)	-1
Webmaster/ Administrator/ Designer	1/4000 FTES	1.5	1	1	-0.5
Instructional Designer/ Technology Sp.	1/100 FTEF	1.3	0	0	-1.3
Multi-media Technician	1/300 FTEF	0.5	0.5	.75	+.25
Multi-media Production Sp.	1/200 FTEF	0.5	0.5	.75	+.25

TCO Support Staff	State Guidelines	Gavilan (State Recommended)	Gavilan Actual	Gavilan Actual as of 5/09	Gavilan Deficit
Technical Training Sp.	1/300 FTE (fac and staff)	1	0	0	-1
Instructional Application Developer	1/ 200 FTEF	1	0	1	0
Communications Tech.	1/1000 FTE	1	0	0	-1
Help Desk Technician	1/1000 FTES	1.2	1 <small>(06-07 budget) did not get</small>	0	-1.2
Technical Manager	1/ 500 pc's	2	1.5	1.5	-0.5
Administrative Systems Support	1/2000 FTES	.5	.5	.5	0
Total w/ Approved Hires		30.5	6.7	10.5 MIS=9.0 including contract	-20.0

The TCO Support Staff Positions are defined below:

Computer Technician: Installs, configures, repairs, and maintains computer hardware and software including servers and assistive technologies. Maintains network connectivity and provides customer support.

Computer Lab/Classroom Technical Assistant: Provides simple technology maintenance and assists faculty and students during and out of class with technology issues.

Network Engineer/Technician: Designs, installs, configures, repairs, and maintains campus backbone(s), networks, and WANs.

Webmaster/Web Administrator/ Web Designer: Designs and maintains the district's/college's Web infrastructure and Web site.

Instructional Designer/Technology Specialist: Assists faculty with integrating technology into curriculum.

Multi-Media Technician: Installs, configures, repairs and maintains multi-media equipment (satellite downlink, broadcast equipment, microwave, head-end delivery, etc.)

Multi-media production specialist: Supports faculty with multi-media production, delivery, and operations.

Technical Training Specialist: Trains staff and faculty. Runs a technology-training center.

Instructional Application Developer/ Administrator: Designs, installs, configures, repairs and maintains software applications to support instruction (e.g., systems analyst, programmer, systems administrator roles) to include support for email, library systems, course management software, list serves, and news-feeds.

Communications Technician: Installs, configures, repairs and maintains communications systems and wiring.

Helpdesk Technician: Provides a central point of contact to receive reports of technical problems from students, faculty, and staff. Documents all requests and notifies appropriate service area. Provides technical answers to questions.

Technical Manager: Manages technical personnel and sub-functions.

Director or higher-level manager who supports instructional systems: Manages overall instructional technology function. Acts as liaison with academic administration.

Appendix C: Online Resource

Gavilan's Library Technology Plan

<http://www.gavilan.edu/library/techplan.html>

Gavilan's Distance Education

<http://www.gavilan.edu/disted>

Gavilan's Disability Resource Center

<http://www.gavilan.edu/drc>

California Community Colleges Chancellor's Office

Strategic Plan, January 17th, 2006

http://www.cccco.edu/strat_plan/ccc_strategic_plan_low_res_draft.pdf

California Community Colleges Chancellor's Office

Access Guidelines for Students with Disabilities, August, 1999

http://www.htctu.net/publications/guidelines/distance_ed/disted.htm

California Community Colleges Chancellor's Office

Guidelines for Producing Instructional and Other Printed Materials in

Alternate Media for Persons with Disabilities, August, 1999

<http://www.htctu.net/publications/guidelines/altmedia/altmedia.htm>

Appendix D: Smart Classroom Prioritization List

SMART CLASSROOM PRIORITIZATION LIST FEBRUARY 4, 2003

	ROOM	ITEM	COST	COMMENT	TOTAL	CUM
1	Library	Computers	25,000	Allocated SP03	25,000	25,000
2	SS 214	Lecture Hall Multimedia	20,000	Can be done in two parts	20,000	45,000
3	ART 103 TH 127	Projector	5,000	ART 103 projector to TH 127	5,000	50,000
4	LS 104	Standard Multimedia	12,000		12,000	62,000
5	PH 103	Standard Multimedia	12,000		12,000	74,000
6	HOL	1 Laptop 3TV/VCR/DVD	3,000 2,400		5,400	79,400
7	TH 125	Lecture Hall Multimedia	15,000	(Projector, Audio VCR/DVD, Powerbook)	15,000	94,400
8	CH 109	Standard Multimedia	12,000		12,000	106,400

Completed Classrooms: Library, MH, SS 210, LS 101, HU 102, HOB, AL 101 (Needs Sound)

The utilization of Measure E Bond funding under the Bond Facilities Master Plan permits Gavilan College to fully implement Smart Classrooms campus-wide.

Appendix E: Standards for Hardware, Software, Web, and Network Management

The Technology Master Plan 2002-2005, Initiative 3B, stated that there should be “Establish standards for hardware, software, Web, and network management”. The following Appendix items address those points.

- Exhibit E-1 Hardware Standards
- Exhibit E-2 Software Standards
- Exhibit E-3 Web Standards
- Exhibit E-4 Network Management Standards
- Exhibit E-5 Portable LCD Projector and Smart Classroom Standards and Specifications
- Exhibit 6 Wireless Hardware and Management Standards

Exhibit E-1: Hardware Standards

Procedures for Hardware Purchases

Addressing the hardware purchases, any hardware purchased for Gavilan College must be approved by the MIS department. This will insure that the hardware will be compatible with our existing hardware, software and network. Only Gavilan College hardware, including Associated Student Body and CMAP hardware approved by MIS, will be connected to the Gavilan computer network. Use the following procedures to initiate new purchases.

1. Contact MIS for a current hardware quote or to discuss appropriate configurations for computers, printers and any other computer hardware required.
2. Attach the quote provided by MIS to your Purchase Requisition, and obtain required budget program numbers and signatures.
3. Forward the completed Purchase Requisition and quote to MIS for signature.
4. MIS will forward the signed, completed Purchase Requisition to the Purchasing Department for ordering. The Purchasing Department will forward to MIS any Purchase Requisitions for software that are not signed by MIS.

Macintosh Computers:

If a specific lab, course, or occupation requires software that can only operate on, or is the industry standard for a Macintosh computer, that lab and the faculty assigned to teach courses in that lab will be allowed to purchase an appropriate Macintosh computer. Exceptions must be brought to the District Technology Committee for discussion and recommendation. The recommendation will then be forwarded for administrative consideration.

Laptop Computers:

Only current Gavilan College laptops can be connected to our network. Laptops are a convenience and are not recommended as desktop replacements because they cost more, have a shorter life, MIS support is more expensive and time consuming, and they can be taken off campus, outside of our firewall and virus protection. MIS is able to support the laptops checked out at the Library because they all have the same configuration which can be imaged, and user data does not have to be backed up and restored. Laptops will not be a standard desktop replacement. Exceptions must be brought to the District Technology Committee for discussion and recommendation. The recommendation will then be forwarded for administrative consideration.

Streaming Media:

There is a need for streaming media to enhance the course work especially for distance learning courses and students. Questions still remain on the feasibility of infrastructure and server capabilities to provide streaming media services. In addition, current MIS staffing cannot support the needs of streaming media.

Hardware Grant Proposals:

Any grant proposals for new hardware or software need to follow the procedures for hardware and software purchases in Appendix E-1 and E-2 prior to submitting the grant.

Exhibit E-2: Software Standards

Procedures for Software Purchases

Addressing the software purchases, any software purchased for Gavilan College must be approved by the MIS department. This will insure that the software will be compatible with our existing hardware, software and network. Use the following procedures to initiate new purchases.

For individual software purchases:

1. Contact MIS for a current software quote or to discuss appropriate configurations for your software requirements.
2. Attach the quote provided by MIS to your Purchase Requisition, and obtain required budget program numbers and signatures.
3. Forward the completed Purchase Requisition and quote to MIS for signature.
4. MIS will forward the signed, completed Purchase Requisition to the Purchasing Department for ordering. The Purchasing Department will forward to MIS any Purchase Requisitions for software that are not signed by MIS.
5. Following implementation, evaluate the software and systems to determine their effectiveness and submit evaluation to your administrator.

For Gavilan computer lab purchases:

1. The Deans and Department Chairs responsible for the various labs will meet with MIS prior to the end of each term to discuss new software requirements and to collect the software needed for each lab for the upcoming term. The schedule for this is:
 - A. December for the upcoming spring term
 - B. April for the upcoming summer term
 - C. May for the upcoming fall Term
2. Any new software purchases for labs will follow the items 1 through 4 (above) for individual software purchases.
3. MIS will create, test and deploy any new software images required for the various student labs prior to the start of the new term. This will be scheduled during the semester breaks.

Exhibit E-3: Web Standards

Web Standards

The District aims to ensure that all official pages on the District website are accurate, up-to-date, and accessible (see Section 508 Standards.)

- 1.0 Official Web Sites may be created by the District, college, and the divisions, departments, and other subdivisions therein. The official home page is the web page that serves as the initial entry point to the institution's web site.
 - 1.1 Official web pages may be established only for legitimate educational purposes to enhance the District's educational mission and to facilitate the educational process of the District. Official web pages are created for the express purpose of disseminating District educational and administrative information.
 - 1.2 These web pages are the property of the District and are intended to be closed forums. As such, the district reserves the full right and authority to regulate and limit access to them, and to regulate the content of the items posted so they are consistent with the educational purposes of the District.
 - 1.3 Persons wishing to post items on an official web page pertaining to the educational mission of the college may do so under the supervision of the responsible administrator, director, or advisor.
- 2.0 Faculty, staff, and students of the District may establish "personal" web pages that utilize the District's electronic communications systems if the web page is consistent with District standards and does not violate applicable laws, and is established for legitimate educational purposes to enhance the mission of the District.
 - 2.1 Web pages utilizing the District's electronic communications systems are not intended to constitute open forums. The District reserves the right and authority to regulate use of District servers to be consistent with the educational purpose of the District.
- 3.0 Standards and guidelines for the development and maintenance of web pages are established to provide consistency and accuracy of information published on the internet.
 - 3.1 The District reserves the right to require use of content or design elements on District pages, including, but not limited to logos, templates, navigational bars, college colors/fonts, and links to the home page.
- 4.0 The internet is a fluid environment that offers access to a wide range of information. While the district assumes responsibility for the accuracy and appropriateness of official District web pages, the District is not responsible for personal web pages. Users who believe the content of a personal page is offensive, obscene, violates District policy, or is inconsistent with the generally accepted norms for web page content may register a formal complaint by contacting the Director of Public Information at (408) 848-4724.

5.0 Links to other web sites contain information that is created, published, maintained, or otherwise posted by organizations independent of the District. The District is not responsible for the content of linked web sites and does not endorse, approve, certify, or guarantee the accuracy of any such information.

Exhibit E-4: Network Management Standards

Network Management Standards

The District aims to ensure that all network management standards are accurate, up-to-date, and accessible for instruction, student services and administrative services both on campus and off-campus.

- Usability-The system does what it is supposed to do ensuring efficiency from the user's perspective.
- Reliability-The system meets availability requirements. (24/7 uptime)
- Performance-The system performs in an adequate manner based on contemporary standards.
- Security-The systems ensures data security, integrity and appropriate access.

We need adequate bandwidth to support instruction for both on-campus & off campus sites. *There is currently not adequate bandwidth for off-sites. Instructors cannot effectively teach a class utilizing the computer. Discussion with the Chancellor's Office needs to be addressed to update our DS-3 with CENIC.*

- 1.0 Plan to increase the speed of the network backbone. *The minimum standard for any new or renovated buildings should be at least 10GB per second.*
- 2.0 Standardize network hardware including switches and be consistent with vendors.
- 3.0 Ensure that we have QoS (Quality of Service) enabled equipment that will let campus needs determine service levels.
- 4.0 Establish wireless capability for the college district at the current wireless standards or to match the student's current hardware.
- 5.0 Establish remote centralized management by testing and monitoring all our networking equipment to facilitate efficient tech support. *Automatic alerts need to be sent to network managers.*
- 6.0 Establish equipment redundancy to eliminate single points of failure in order to attain our service levels, i.e. 24/7 availability, UPS battery backup protection.
- 7.0 Provide secure, remote access for Gavilan employees to work from remote locations.
- 8.0 Provide a system-wide notification of changes in system operations and maintenance schedules.
- 9.0 Provide a secured environment to ensure integrity and privacy to comply with government standards to include physical connectivity to the network.

- 10.0 Plan for a network that includes the capability for new technology services and/or infrastructure. For example, this may include video and voice over IP, i.e. convergence.
- 11.0 Establish the capability of supporting network intrusion, detection, prevention and logging. This includes network access accounting.
- 12.0 Continue to incorporate anti-virus software and malware protection for the network and desktop stations.
- 13.0 Control Gavilan network access to external networks.

Exhibit E-5: Portable LCD Projector and Smart Classroom Standards and Specifications

The following specifications describe minimum requirements for LCD Projector and Smart Classrooms:

Portable LCD Projectors

Portable LCD Projectors will have at a minimum: 3300 Lumens with inputs for 1-VGA, 1-DVI, 1-“S-Video” and 1-composite video, 1024 x 768 minimum Display Resolution, and audio input for each.

The following products currently meet minimum standards: Sharp XG-C335x, Sharp XG-C330x, Epson PowerLite 1825, Epson PowerLite 1815p, and Epson PowerLite 1810p

Permanent LCD Projectors

LCD Projectors for permanent Smart Classroom installations will have at a minimum: 4000 Lumens with inputs for 2-VGAs, 1-DVI, 1-“S-Video”, 1-composite video with audio input for each and have a 1024 x 768 minimum Display Resolution. Lecture Halls/Theater may require a long throw lens to cover the distance from the projection booth to the video screen.

The following products currently meet minimum standards: Sharp XG-C435x, Sharp XG-C465x, Sharp XG-C335x, Epson PowerLite 7900NL and Epson PowerLite 8300NL.

LCD Projector Control Panels

LCD Projector Control Panel will manage all aspects of the LCD Projector and its components. Desktop and/or Laptop Computers, DVD/VHS Player, Sound System, Motorized/Pull Down Projector Screens, Document Cameras, Live Video Cameras/Decks, Microscope Cameras, etc.

Each Control Panel will have a DVD/VHS Player with tuner wired with Cable TV and have 2-VGAs or (1-VGA and 1-DVI), S-Video, and composite video signals wired through the walls to the LCD Projector. Stereo sound from each will reach an amplifier and stereo speakers or powered speakers. The control panel and/or input panel shall be located nearest the front of the room within reach of the presenter.

The following products currently meet minimum standards: Smart Panel or Pixie

LCD Projector Mounts

LCD Projector Mounting systems will be universal (so as not to obsolete the mount for future LCD Projector replacements) and use the same locking system/key throughout campus.

The following product meets minimum standards: “Chief” Universal Keyed Security Projector Mount with mounting kit.

Sound System

The sound system shall be wired for stereo playback and have enough volume appropriate for the room size. Typical classrooms can use powered speaker systems rated at 80 watts or greater. Larger Lecture Halls/Theater need powered speakers greater than 150 watts or a stereo amplifier system with separate speakers.

The following products meet minimum standards: Cambridge SoundWorks MicroWorkII, Extreme 2.1 or current equivalent.

DVD / VHS Player with Tuner

DVD / VHS Player with built in tuner to playback and record DVDs, VHS Tapes and digital video cable program signals.

The following products meet minimum standards: Sony RDR-VXD655, RDR-VX555, RDR-VX530, RDR-VX500, SLV-D550P and SLV-D380P.

Video Screen

Video projector screen should be standard white square format with a High Contrast Matte White fabric and appropriate for the number of people and the size of the room. Typical size classroom can have pull down screens, however, Lecture halls and screens larger than 9 feet should be motorized.

The following products meet minimum standards: Pull down screens: Da-Lite Model "C" with CSR" Square Video Screen with High Contrast Matte White fabric. Motorized screen: Da-Lite Contour Electrol Screen Square Video Screen with High Contrast Matte White fabric and requires a Da-Lite Infrared Wireless Remote.

Procedures for Portable LCD Projectors and Smart Classroom Purchases

Gavilan College Media Services will check and approve all purchases for portable LCD Projectors and permanent Smart Classroom installations. Compliancy to the following Gavilan College standard will maintain compatibility with the college's current hardware, wiring and provide efficient A/V support with a minimum of down time.

Use the following procedures to initiate new purchases.

1. Contact Media Services for a current hardware quote or to discuss appropriate configurations for portable LCD Projectors or Smart Classroom with approved vendors.
2. Attach the quote provided by Media Services to your Purchase Requisition, and obtain required budgetary program numbers and signatures.
3. Forward the completed Purchase Requisition and quote to Media Services for signature.
5. Media Services will forward the signed and completed Purchase Requisition to the Purchasing Department for ordering. The Purchasing Department will forward to Media Services any Purchase Requisitions for portable LCD Projectors or Smart Classroom installations that are not signed by Media Services.

Exhibit E-6: Wireless Hardware and Management Standards

1.0 Gavilan College will have a standard wireless LAN backbone, securely and efficiently supporting its entire on-campus student population with the following capabilities:

- Campus-wide wireless network availability to students supporting the latest standards
- Control over rogue wireless network access points and approved RF frequencies
- Management of multimedia applications via QoS configurations on the wireless devices
- Low power consumption to comply with California State “green” initiatives
- Seamless roaming capabilities as students move from one campus location to another
- Failover capabilities for 24x7 functionality
- Load balancing among wireless devices to evenly distribute use when possible
- Support of multiple VLANs and multiple SSIDs

2.0 Gavilan MIS department has complete control of the wifi spectrum within the Gavilan district.

Appendix F: Desktop Computer Replacement Plan

Gavilan Community College faces many challenges in serving today's students, including budgeting, staffing, regulations, and technology management. Most of the issues related to technology have been discussed and prioritized in the Gavilan Technology Master Plan, which was approved by the Gavilan College Board of Directors.

Some of the challenges mentioned in the Technology Plan Executive Summary:

- A. Managing constrained resources.
- B. Providing ubiquitous access to all students.
- C. Keeping current on today's technology in order to ensure that Gavilan's students will be prepared to enter the workforce.
- D. Properly integrating new technologies into the teaching and learning environment, and ensuring the faculty and staff are properly trained, and programs are developed to assist the faculty in making this transition.
- E. Applying appropriate technology in support of Student and Administrative Services.

The Chancellor's Office has stated in its Technology II Plan that a computer has an expected useful life of 3 years.

Gavilan's Technology Plan states that computers in classrooms should be replaced every three years in order to keep pace with the level of instruction/proficiency demanded by industry and education.

In respect to desktop computers, the Gavilan Technology plan has not been adhered to because of historical budget constraints. The Measure E Bond fund can be used to remedy this situation and bring the computer classrooms and faculty/staff computers up-to-date. During the next two to three years, bond money can be used to update the desktop computers on campus.

This document demonstrates a plan for the implementation of new computers in the classrooms, and for an upgrade of faculty/staff computers as a result of reusing technology leaving the classroom during the implementation process.

Once the bond's budget plan is complete in three years, all campus desktop computers will have been upgraded to current technology and will be able to meet the demands of the near future.

After the bond's funds are used, Gavilan budgets need to be able to maintain the cost of ownership of computer classrooms from the general fund.

Gavilan is striving to be the "College of Choice". The modernization of the computer infrastructure on campus is needed to comply with that directive, and to remain competitive in the near future.

Statewide TCO Technical Support Guidelines

The California Community College Chancellor's Office (CCCCO) has developed a Statewide Technology Plan commonly referred to as Technology II. A key section of the CCCCCO Technology II Plan addresses the fact that "When educational institutions acquire computer hardware and software, they generally do so without factoring in the costs to support the equipment and infrastructure. As a result, there is often a lack of support to maintain, repair and improve performance of the equipment, as well as a lack of staff for training faculty, staff, and students. This creates delays and inefficient use."

The concept of determining the full cost of ownership (one-time and on-going costs, support, training, and replacement) is called Total Cost of Ownership (TCO).

Gartner Group and the Telecommunications and Technology Advisory Committee (TTAC) worked to determine the appropriate TCO model for the community college environment. The purpose of this model is to serve as a guide for developing a baseline minimum requirement for Information Technology TCO. TTAC will review this model annually to determine adjustments to it as appropriate.

As an example of TCO, the cost estimate for a PC is \$3,506 per PC. This cost is comprised of the following model:

TCO Components	Cost	Percent of TCO Cost
Hardware and software	\$1,794	51%
Systems management support	762	22%
End user support	417	12%
Development support	148	4%
Communications support	60	2%
Training	325	9%
Total	\$3,506	100%

Therefore, as a college purchases a computer (i.e., \$1,794), they should also budget for and allocate an additional \$1,712 to support that computer over its expected useful life of 3 years. For more information on the TCO model, please refer to the CCC Technology II Plan.

The TCO initiative model is categorized into four "Computing" areas: Student, Faculty, Administrative and Classified Staff, and Support Baselines (staffing). These areas identify the recommended minimum computing hardware, software, and support levels that Community Colleges should be providing.

Because technical support is such a critical area to this campus, the TCO section of the Technology Plan will focus on the number of technical staff required to provide adequate support to the Gavilan campus community. In order for Gavilan's Philosophy and Vision Statements, as well as its Educational Goals to be successful, technical support issues must be addressed.

Implementation

Background

The Gavilan College Technology Plan prioritizes computer needs, and it states that computer classroom labs should be updated first and maintained current as funding permits. Once the labs are properly equipped, money can be spent on other areas such as faculty/staff computers. As part of the plan, it is suggested that the computers in the labs be recycled for use as a faculty/staff computer if possible.

For the past several years, state and district budgeting constraints have not allowed Gavilan to purchase enough computers to keep the computer labs up-to-date, and the faculty/staff computers are even older than the lab computers. Therefore, many of the computers in the lab cannot be recycled into faculty/staff computers because of their age and configuration. Gavilan has approximately 900 computers on campus. With an expected life of three years, that means 300 computers need to be purchased every year to keep the machines current.

Figure 1 below shows the age of lab computers on campus, while Figures 2 and 3 show the age of faculty/staff computers. The charts show that some of our labs are using computers that are 6 years old, and in fact there are around 350 that are 4 – 5 years old. The situation of the faculty staff computers is worse, as some machines are 10 years old.

The ages of the machines have been a problem in the areas of technical support and productivity. Many faculty and staff computers cannot run the latest versions of Microsoft Office, and have problems running anti-virus and spyware software. Also, many of the machines are still running Windows 98, which is problematic to maintain and update to current software levels.

We currently have an immediate need for around 500 machines, just to bring the campus up to Windows XP and Office XP, our current standards. Around 150-200 of the lab machines being replaced can be used for faculty/staff, but many are too old to re-implement.

Figure 1. Age of Computers in Labs

Processor	Count	Total	Year Released
II-350	19	19	1998
II-400	33	52	1998
III-400	26	78	1999
III-450	96	174	1999
III-550	2	176	1999
Celeron 700	30	206	2000
III-700	74	280	1999
III-733	64	344	1999
III-900	1	345	1999
AMD 1000	15	360	2000
III-1000	12	372	2000
III-1063	6	378	2000
IV-1500	54	432	2000
IV-1550	3	435	2001
IV-1700	16	451	2001
IV-1800	8	459	2001
IV-2000	43	502	2001
IV-2200	1	503	2002
IV-2400	1	504	2002
IV-2600	42	546	2002

Figures 2 and 3. Age of Computers in Faculty/Staff Offices

Processor	Count	Total	Year Released
P-I 75	4	4	1994
P-I 120	1	5	1995
P-I 166	3	8	1995
P-I 200	4	12	1996
P-II 233	16	28	1997
P-II 266	20	48	1997
P-II 300	1	49	1997
P-II 350	27	76	1998
P-II 400	23	99	1998
P-II 450	1	100	1998
P-III 400	1	101	1999
P-III 450	17	118	1999
P-III 500	12	130	1999
P-III 550	22	152	1999
P-III 600	1	153	1999
P-III 650	1	154	1999
P-III 666	1	155	1999
Celeron 700	1	156	2000
P-III 700	17	173	1999
P-III 733	7	180	1999
P-III 850	3	183	1999

Processor	Count	Total	Year Released
P-III 866	3	186	1999
P-III 1000	10	196	2000
P-III 1100	4	200	2000
P-III 1200	1	201	2000
AMD 1500	1	202	2000
P-IV 1500	8	210	2000
P-IV 1550	1	211	2001
AMD 1600+	1	212	2001
P-IV 1700	6	218	2001
P-IV 1800	8	226	2001
P-IV 2000	9	235	2001
P-IV 2200	1	236	2002
P-IV 2400	30	266	2002
P-IV 2533	6	272	2002
P-IV 2666	10	282	2002
Zeon 2666	1	283	2003
P-IV 2700	1	284	2003
P-IV 2800	23	307	2003
P-IV 3000	1	308	2004
P-IV 3066	22	330	2004

Implementation Plan

A gradual implementation is suggested to minimize disruption of instructional services and to ensure MIS Support time to configure and install the computers. Some areas such as classroom labs can only be upgraded during a break between semesters or during spring break, etc.

New computer purchasing should begin immediately, at the rate of approximately 300/year, spread out over the year in small implementation groups as follows:

2004-2005 School Year	Quantity
Literacy Lounge	15
EOPS Lab	3
Library – Computer Place	50
Library – Computer Classroom	33
Math Software Lab	22
Business Lab 111	24
Business Lab 110	37
Business Lab 118	28
Hollister Classroom	40
Morgan Hill Classroom 1	30
ESL Classroom	39

2004-2005 Total Replacements: 321
Approximate Cost: \$328,500

2005-2006 School Year	Quantity
Occupational Health	24
Main Library Lab	21
Computer Graphics Lab	24
Aviation	4
MESA Lab	36
Rambler Lab	8
Faculty/Staff	150

2005-2006 Total Replacements: 267
Approximate Cost: \$267,000

2006-2007 School Year	Quantity
Digital Media	50
Career Center	4
Morgan Hill Classroom 2	20
Faculty/Staff	100
DSPS	14
MIS Servers	20

2006-2007 Total Replacements: 208
Approximate Cost: \$208,000

At the end of three years, most campus computers have been upgraded: the computer classrooms all have new equipment, and faculty/staff machines have been upgraded with slightly used computers from the classrooms. In three years, the cycle will start over and in the school year 2007-2008, classrooms that were upgraded in 2004-2005 will need to be upgraded again. As of 2009, most faculty and staff computers have been replaced, and all the computer labs have been upgraded. Figures 1, 2 and 3 still need to be updated to reflect the current age of computers.

Appendix G: Completed Initiatives (2002-2005)

The Technology Master Plan 2002-2005 produced results in that the following initiatives were successfully achieved:

- Uninterruptible Power Supplies (UPS) devices supporting all network switches were upgraded.
- TRIO wireless technology was implemented in areas of the campus.
- Internet access was expanded from T1 to DS3.
- A comprehensive campus policy for computer technology purchases & support was established.
- Standards for technology hardware & software were established.
- A technology renewal program was established based on a three-year cycle.
- Training for all staff on basic level of technology competency.
- Incentives, such as stipends, professional growth, or flex credit, provided to encourage additional training.
- Technological advancements were implemented to provide alternate ways for students to access counseling, orientation, and book purchasing services.
- Phone registration was implemented.
- Web access to faculty and students for grade recording & lookup is being completed Spring 2006.
- Computer lockout put in place for students who do not pass prerequisite courses.
- District Technology Committee formed with representatives from student services, academic affairs, business services, and MIS/Tech Support to prioritize project requests/enhancements for all software systems and applications.
- Found an integrated solution for student records, general ledger, payroll, human resources, inventory control, and accounting.
- Consideration given to outsourcing all or part of the campus-wide software and hardware functions, including MIS state reporting requirements – solved by ERP system being implemented.
- Library Technology Plan 1999-2003 implemented.
- Library automation system in daily operation.
- Access to electronic resources provided for multiple concurrent users.
- Access provided for students that matches level of research and informational needs.
- Member of several consortia providing networking and regional/state collaboration.
- Distance learning program developed and implemented.
- Training, awareness, and support provided for faculty who want to engage in distance learning instruction.
- The online orientation plan for first-time online students begins Summer '06.
- Provided assistive technology and awareness training for core technical personnel and user assistance.
- Identified & evaluated existing software programs for total access, furniture, and equipment needs for students with disabilities.
- Assessed the need to establish a new Learning Assistance Center.

- Created preliminary drawings, cost analysis, and funding strategies for computer labs, computer classrooms, tutoring facilities, office space, and computer service areas through the Minimum Standards for Classrooms & Labs.
- Assessed the need for a second PC lab at the Morgan Hill site.
- Determined appropriate levels of technology required in each classroom.
- Established a technology renewal program for classrooms that was included in the original Technology Master Plan.
- The District Technology Committee considers the most cost-effective and innovative methods of delivering and supporting instruction based on this Plan.
- Programming schedule for Gavilan Channel 18 created.
- Established guidelines for Gavilan Channel 18 programming.
- Working group to curate programs established for Gavilan Channel 18.
- Staff assigned to produce shows and manage day-to-day programming operations.
- Creation of a crew to shoot and edit campus projects for Gavilan Channel 18.
- Gavilan Channel 18 budget established.
- Program to assess student information competency needs and integrating such information competency into the curriculum developed.
- Implemented state recommendations and professional standards for Information Competency requirements.
- Virtual library resources via the web (ex. e-books) to support information competency.
- Offering select workshops for faculty, such as web authoring.
- Resource center publicized via e-mail and the online calendar.
- Resource Center representatives take active roles in campus committees and regional technology committees.
- Resource Center supplied with the most current technology.
- Provided a support system on the Intranet for staff access to institutional data.
- Institutional researcher was provided with access to all databases.
- Digital Media courses developed to keep up with technological developments.
- Digital Media program established in a space that allows the merging of digital media arts.
- 4CNet video conferencing capabilities developed.
- Partnerships with technology companies in the District developed.
- Technology internships established with local area businesses.
- Appropriate coursework to meet business needs and student career objectives offered.