Technology
Strategic Plan
2013-2017

Prepared by:
The Technology Coordinating Team
Paradise Valley Community College Vision Statement

Paradise Valley Community College (PVCC) aspires to be the higher learning organization of choice by creating engaging lifelong educational relationships that inspire and support all learners to increase their capacity for personal growth and positive social change.

Paradise Valley Community College Mission Statement

The Mission of Paradise Valley Community College is to educate the whole person and to serve our students and our communities by providing learning opportunities that are designed to help them achieve their goals.

PVCC provides diverse learning opportunities including:

- University Transfer Education
- General Education
- Developmental Education
- Continuing Education
- Community Education
- Workforce Development
- Student Development
- Honors Education
- Global Engagement
- Civic Responsibility

PVCC provides access to these opportunities in a welcoming, inclusive, and supportive environment. As a college committed to learning and continuous quality improvement, PVCC annually assesses and publishes reports concerning the effectiveness of our programs and services.

Prepared by:
The Technology Coordinating Team

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I. Executive Summary

Plan Contents

The Paradise Valley Community College Technology Coordinating Team (TCT) designed the 2013 revised technology plan as a living document. Some components of the document will be revised and updated on an annual basis (such as, the Summary of Current Inventory Replacement Schedule). Because goal achievement depends on funding, annual review of objectives will need to be conducted to make sure that available funds are targeted toward the technology priorities. Other portions of the document will be revised to coincide with the college's established strategic planning process (for instance, annual goal review; three-year summary of projected technology needs; three-year projections for new technology funding). Every division of the plan will be reviewed and modified within a four-year period from the time it was published.

The plan is designed to serve four primary functions:

1. to orient all faculty and staff regarding the context and content of technology planning at the college;
2. provide the TCT, strategic planning team, division chairpersons, and administration with an operational philosophy and assumptions, a detailed needs statement and analysis regarding the status of technology at the college for the ensuing four-year period;
3. link the TCT to other college and district initiatives (for example, employee and organizational development, MCLI, strategic planning); and,
4. provide district planners with information about college technology directions as a basis for district-wide planning and fiscal initiatives and coordinate, as a partnership, with district IT on strategic directions.

The document provides a brief history of technology and technology planning at the college. More importantly, the document links technology to the college's paramount goal: a learning-centered institution. Major components of this plan include:

- key planning assumptions;
- the role of the TCT;
- the college's current four-year goals for technology and specific objectives for 2013-2017;
- summaries (estimates) of funding requirements for both a stable enrollment and expanded enrollment/programming;
- a summary for current inventory replacement needs;
- an outline of capital facilities planning projects
- a criteria sheet on replacement priorities
- document planning and budgeting process for HLC

Finally, the document provides detailed reference documents in its appendices. Among these documents are the PVCC Information Technology Policy, Maricopa’s Technology Resource Standards, and PVCC Strategic Focus and Priorities.

This content allows the casual user, college strategic planners, and district analysts to obtain information necessary to fulfill their varied needs.
The plan incorporates the following critical statements:

1. Learning is the core component of PVCC's mission.

2. Strategic planning and technology implementation are data supported and seen as evolving and continually improving processes at the college.

3. Technology and technology training are important tools used to maximize student and employee learning at Paradise Valley Community College.

4. TCT functions as an important component of the college's Strategic Planning Steering Team by providing input on the college’s technology environment via a SWOT analysis.

5. The TCT will identify strategic initiatives, identify technology related issues and offer solutions, conduct research and propose alternative answers to questions raised about technology within the college community. The TCT will communicate with the college community about technology, and technologically related issues on a continuing basis.

6. Major strategic issues include the use of limited resources to meet increasing demands, linking technology to the college's learning initiative, and providing faculty and staff with training in the varied uses of technology.

7. The college must continue to implement comprehensive replacement plans that maximize the use of each piece of equipment.

8. Research and develop the priorities for the potential 2016 Bond.

**Synopsis**

The goal of TCT is to ensure that technology is used to help our entire college community be more effective.

In a period of budget limitations, new building projects and programming, already limited resources will become ever more constrained. Therefore, the college must continually reassess and improve its assumptions, databases, and planning mechanisms to assure that expenditures for technology produce maximum efficiency and effectiveness in the years to come.

Annual review of priorities ensures our limited dollars are spent to achieve the largest impact. Continuous review and revision is imperative to give TCT relevant information to make decisions.
II. Plan Context

A. Overview

This plan replaces the expiring technology plan for Paradise Valley Community College that was approved in April of 2008.

The team designed this document to provide a starting point from which members of the college community could deepen their understanding of three critical issues: (1) teaching and learning at PVCC, (2) the constantly evolving state of PVCC's technology and technological infrastructure, and (3) the relationship between teaching, learning and technology. This document will also provide a framework to address the college’s technology needs during the capital planning cycle.

Paradise Valley Community College continues a progressive evolution towards becoming a learning centered institution. The Technology Coordinating Team expanded and revised the PVCC Technology Plan to meet the complex demands facing a learning centered educational institution from the last 4 years to the upcoming 4 years.

The original intent of the plan and its foundational assumptions remain unchanged. The plan is intended to function as a working document. It is the result of collaborative dialogue among faculty, administrators, and technical staff. Most critically, the plan is a point of demarcation for continuous dialogues, changes and improvements in the use of technological resources as the college pursues its vision and mission into the future.

B. A Brief History of Technology at Paradise Valley Community College

The founding staff of Paradise Valley Community College embraced a student development philosophy that the college would be learning centered and would become technologically rich in opportunities for enhanced learning activities. From the college's inception as a center in 1985, faculty members were encouraged to incorporate relevant technological innovation into the teaching/learning process. The college's budget supported a significant infrastructure designed to support the learning environment.

The use of technologically enhanced instructional techniques to promote student learning was a key component of the college's planning assumptions throughout its first decade. By 1995, technology was pervasive in every area of the college's instructional, student, and administrative support systems.

In order to assure comprehensive participation in the college's strategic planning initiatives, many of which were grounded in technological innovation, a 38-person technology committee endeavored to review, understand, prioritize, and present technological priorities and assist the college's strategic planning and budgeting committees. However, the committee's size hampered its ability to perform these tasks in an efficient and effective manner.

Therefore, in fall 1995, college planners formed a smaller (6-10 person) technology steering team to review the mission, structure, and processes of the Technology Committee. Over the next academic year, the committee studied the functions of the Technology Committee, ultimately concluding that the 38-person group was too
unwieldy to perform the complex tasks required of it in a timely manner. Based upon a recommendation made in October 1996, the college formed a smaller, skill-set-based Technology Coordinating Team (TCT) composed of 10 members.

The TCT met regularly throughout the spring and summer semesters of 1997. The college Strategic Planning Committee approved the first draft of a Technology Strategic Plan in September 1997.

The TCT has continued to meet twice each month during the academic year; members of the team have worked on individual and group projects in the summer months.

In March 1999, the TCT began the first revision of Paradise Valley Community College's strategic technology plan. Revisions were completed in time for publication of the revised plan in conjunction with the annual Ocotillo Technology Retreat held in May 1999.

The 2004-2007 and 2008-2012 Technology Strategic Plans provided the framework for much of the TCT's work over the past eight years. A system of prioritization of requests was put into place and recommendations regarding technology purchases and support structures were made through the college process. This has enabled the college to direct limited technology resources to areas that would have the most impact on our learning agenda. (Specific accomplishments and funded projects are found in Appendix A and Appendix B of this document.)

The TCT is also a subcommittee of the Strategic Planning Team. This updated plan (for years 2013-2017) will focus on guiding technology activities over the next four years and provide a six-year vision for technology as it relates to the colleges capital development plans.

C. Statements About Learning

When considering the use of technology to enhance the learning process, the following factors are considered:

- Learning takes place in a developmental, cumulative process. Individuals learn at different rates, utilize various active styles and strategies, have different motives, and activate a variety of senses (visual, auditory, tactile/kinesthetic).

- In addition to the accumulation of knowledge, the learning process must also foster higher-level critical thinking skills such as application, analysis, synthesis, and evaluation. Deeper learning results from practice and reinforcement over time.

- Self-awareness is an important step in the learning process--what do students know, how do students learn best, how can students be certain about what they claim to know.

- Learning is strongly affected by the educational setting, especially one that is positively influenced by collaborative efforts of departments/divisions, faculty, staff, and students (i.e. learning communities). Out-of-class, informal and incidental learning experiences are important.

- Significant tenants of learning include: continual research (individual and organizational reflection on what is known about learning and what is viewed as important to know), capacity building, and practice (it is important for the organization and individuals to also
reflect on what has been learned and to be involved with generative activity).

- The assessment of student learning is a cornerstone of the college’s efforts to become more learning centered. Assessment is viewed as a “good practice” for all faculty and staff.

**D1. Planning Assumptions – Technology in the Organization**

1. The primary goal of the college is to promote learning at three levels: student, employee, and organization.

2. Technology is an important means to achieving student, employee, and organizational learning.

3. A focused employee and organizational development initiative is critical to developing and implementing a technology enhanced learning environment for students and staff.

4. Continuous participative and collaborative input from the college community must be solicited, evaluated, and implemented in the development, assessment, and constant improvement of technological strategies promoting learning.

5. Technology is expensive, dynamic, and in a continuous state of evolution. Therefore, plans for its immediate and long-range implementation are an important component of both the college's strategic and action plans.

6. The mission of the Technology Coordinating Team is: *to provide direction for the effective and efficient use of technology.*

7. The MCCC Technology Resource Standards governing use of computing resources and the PVCC Technology Policy will serve as a framework for planned use of technology resources.

**D2. Planning Assumptions – Specific to Technology Uses in the Organization**

1. Technology hardware will continue to drop in price and increase in speed.

2. Intelligent agent software and data mining will be used.

3. Speech recognition and accessibility programs will be enhanced.

4. Greater need for simulation software and hardware for science, health care and engineering based classes.

5. Technology is necessary in areas that have not traditionally used applications (athletics, dance technology, music, fine arts, etc.).

6. Internet tools usage will increase.

7. Technology and its uses will become more sophisticated resulting in the need for new hardware and software as well as technical support staff.

8. Mobile computing advances will continue to provide opportunities in and out of the classroom. Students and employees will want access to resources any time from anywhere.

9. The use of Open Educational Resources will increase.
### E. Technology Trend Analysis: 2013-2017

Provide technology trend analysis.

| 1. What major trends are occurring in technology? | • Expanding the use of diverse learning environment  
• Media rich learning environments (classrooms, labs, etc., for both student and instructor)  
• Online self-service options for students (grades, registration, financial aid, payments, etc.)  
• Online self service for faculty  
• Online self service for campus business procedures  
• High speed wireless connectivity  
• Desktop  
• Tablets  
• Speech recognition (verbal control over technology)  
• Increased need for specialized database support for instruction and administration  
• Gigabit internet  
• Open source applications  
• Expanding competition from private industries, universities, and other community colleges  
• Reduction in cost of advanced technologies  
• Increased use of eBooks and online digital learning resources  
• Educational gaming  
• Virtual campuses & communities  
• User-created content  
• Social networking & technology lounges  
• Students bringing own technology  
• Network security  
• Data protection schemas  
• Anytime/any place with anything computing |
| 2. What impact will these trends have on the way we do business at PVCC? | • Strain on resources  
• New way to teach and interact with students  
• More responsibility on the learner  
• Requires an increase in sophisticated user support  
• Training needs to be ongoing & just in time  
• Increased & creative funding  
• Increased collaboration between learning support areas and technology  
• Planning - can’t just plan and implement, need to prototype (piloting)  
• Need for care in information verification with instant publication  
• Support for innovative ideas  
• More communication between groups of people  
• Rethink the constraints of the semester (time allotted for courses)  
• Change the way we are funded  
• Change the way we work, where we work, and the way we schedule meetings (telecommuting) |
3. **What concrete steps can we take over the next year to move toward leveraging these trends?**

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<td></td>
<td>Instant publication of information</td>
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<td>Training</td>
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<td>Developing standard tools for faculty to use (e.g., templates, software)</td>
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<td>Release time for a faculty member to support other faculty in their projects</td>
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<td>Provide current information to campus community (speakers, workshops)</td>
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<td>Expand and support use of Learning Management Systems</td>
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<td>Provide sufficient staffing levels to support technology</td>
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<td>Hire an instructional technologist to support faculty</td>
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<td>Provide summer contracts for faculty to develop technology rich content</td>
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<td>Provide instructional designer support for faculty to improve effectiveness of distance learning courses</td>
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<td>Sponsor information sessions on emerging technologies (2 per year)</td>
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III. The Role of the Technology Coordinating Team

The Technology Coordinating Team is a subcommittee of the PVCC Strategic Planning Steering Team and acts in the following five capacities in support of the college’s central mission:

1. The Technology Coordinating Team will determine broad-based technology strategic initiatives (4-year technology plan and 10-year vision) that will guide departments/divisions in the development of their goals, objectives, and action plans related to technology.

2. The Technology Coordinating Team will identify campus-wide technology issues and promote solutions.

3. The Technology Coordinating Team will assist planning groups and college committees by researching and responding to questions related to technology-based issues such as computing, alternative delivery systems, training, infrastructure needs, and support needs.

4. The Technology Coordinating Team will develop, review, update and continuously improve the technology planning process at PVCC and provide communication links to relevant college departments, divisions and committees.

5. The Technology Coordinating Team will review technology budget requests and make prioritized recommendations to the Vice-presidents and the Budget Development Steering Team.
Define broad-based technology initiatives (4-year Technology Strategic Plan)

Present to Strategic Planning Steering Team for review

Technology planning goals integrated into strategic goals document

Identify campus-wide issues

Research solutions for all identified technology issues, developing project teams where applicable

Develop solutions/alternatives and communicate

Develop budget requests and submit to Budget Development Steering Team

Budget requests considered and recommendation created

Goals, Objectives, Action Plans created in support of strategic issues

Develop questions, issues related to technology (i.e., alternative delivery, training, infrastructure needs, and support issues)

Develop budget requests and submit to Budget Development Steering Team

Review accomplishments. SWOT analysis conducted. Review, update & improve planning process

Funding Approvals Communicated

Divisions identify strategic issues for coming year

No

Technology Strategic Plan 2013-20017
IV. Technology Planning Goals and Objectives
2013-2017

Strategic Goal One: Empower All Students to Succeed

1.3 Increase course, certificate, and degree (associate and baccalaureate) completion.

1.4 Close student achievement gaps in core academic areas.

1.5 Increase the percentage of students who successfully complete all developmental course sequences through the first college level course.

1.7 Increase student access through alternative course scheduling and delivery formats.

Strategic Goal Two: Engage and Invest in Community

2.2 Develop programs and services to address the Black Mountain service area.

Strategic Goal Three: Empower Employees to Excel

3.1 Enrich learning and organizational effectiveness by increasing the diversity of the employee workforce.

Strategic Goal Four: Expand and Maximize Resources

4.1 Increase operational efficiency by implementing strategies for sustaining facilities, human/capital resources, and One Maricopa initiatives.
<table>
<thead>
<tr>
<th>PVCC Strategic Focus &amp; Priority</th>
<th>Technology Objective</th>
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| 1.3 Increase course, certificate, and degree (associate and baccalaureate) completion. | a. Provide custom reporting and tracking data for Career Services/Counseling and A&R.  
b. Modify iGoal to meet modern requirements for student learning. |
| 1.4 Close student achievement gaps in core academic areas. | a. Support development of OER materials.  
b. Provide technologies for STEM Summer Boot Camp and ACE Summer Math Camp.  
c. Increase access to technology support services.  
d. Provide technologies and support to enhance the student learning experience in the LSC. |
| 1.5 Increase the percentage of students who successfully complete all developmental course sequences through the first college level course. | a. Research current use patterns of technology which lead to increased student learning, motivation, and/or retention  
b. Provide technologies and training that lead to increased student engagement and success.  
c. Plan, implement, and evaluate technology program improvements (e.g. iGoal, Paws, GEA) |
| 1.7 Increase student access through alternative course scheduling and delivery formats. | a. Implement improvements to online student orientation.  
b. Provide students with the technology infrastructure to learn content in a multitude of ways in any area on campus.  
c. Expand and strengthen infrastructure to support an increase in e-Learning (alternative and distance delivery) opportunities for students |
|---|---|
| 2.2 Develop programs and services to address the Black Mountain service area. | a. Provide technology and support for Black Mountain Phase II completion.  
b. Expand and update current infrastructure to integrate with new technology for Phase II. |
| 3.1 Enrich learning and organizational effectiveness by increasing the diversity of the employee workforce. | a. Continue to recruit and hire a diverse IT workforce.  
b. Leverage the talents of the student population for employment in IT. |
| 4.1 Increase operational efficiency by implementing strategies for sustaining facilities, human/capital resources, and One Maricopa initiatives. | a. Plan, implement, and evaluate technology program improvements.  
b. Continue cycle of replacement computers and multimedia systems to maintain teaching, learning, and work environments.  
c. Expand infrastructure to new and existing buildings and spaces with wireless connectivity to network resources for mobility and flexibility.  
d. Investigate, develop, and support external partnerships and internal procedures (e.g. pay for print, technology fee) to maximize technology resources. |
V. 2013-2017 Capital Development Program  
Summary of Capital Needs

Following is a summary of capital development projects proposed to occur over the life of the 2004 Bond. While specific technology needs have not yet been finalized for some projects or developed for others, it is anticipated that Paradise Valley Community College will continue to build technology rich facilities in support of learning and service to students. (Disclaimer: as of February 4, 2013, some of these projects continue to be in draft form and still require finalization by the college.)

Life Sciences Building - Completed  
(Fall 2009 – planned occupancy)
- 7 general purpose classrooms
- 8 laboratories
- 1 conference room
- 2 common areas
- faculty offices
- work area for adjunct faculty

PVCC at Black Mountain Phase I - Completed  
(Spring 2009 – planned occupancy)
- 5 general purpose classrooms
- 1 computer classroom
- 1 conference room
- 1 work area for faculty
- 1 work area for support services
- 1 common area

PVCC at Black Mountain Phase II  
(Fall 2014 – planned occupancy)
- 5 general purpose classrooms
- 2 science labs
- 1 computer lab
- 1 conference room
- 1 work area for LSC
- 1 work area for Testing Center
- 8 faculty offices/workspace support person
Q Building - Completed
(Fall 2010 – planned occupancy of 45,000 sq. feet of 66,000 sq. foot building)
  • 19 general purpose classrooms
  • 3 computer classrooms
  • 4 conference rooms
  • 25-30 offices
  • 4-6 support and work areas
  • common areas

Health Sciences Building – Completed
  • Simulation labs
  • Conference room
  • Observable lab
  • Offices

College-wide Security Systems
  • Expand video security system
  • Expand card key access to buildings and rooms

Remaining Bond Projects
  • Infrastructure
  • Telecommunications
  • Security
  • Computing Needs
VI. Criteria for Prioritization of New and Replacement Technology

There are many factors that will be considered in the prioritization of infrastructure, computers and peripheral equipment to be replaced. The information presented here reflects an optimum replacement year, and estimated cost to fund the replacement. This data will be used for review each year and will be considered for prioritization each funding cycle.

Factors that will be considered for replacement of equipment are:

**Area No. 1: Function**

a. Is this equipment critical to the mission of the college?
b. Are there software system upgrades that render equipment underpowered or that interfere with critical job functions?
c. Does this equipment enhance the college’s Strategic Focus and Priorities?

**Area No. 2: Age of equipment**

a. Is the equipment no longer able to serve its original purpose?
b. Can the useful life of equipment be extended by providing a cost-effective, intermediate upgrade to this equipment?
c. Is an upgrade sufficient to maintain functionality for a reasonable period of time, and accomplish the purpose for which the equipment was originally purchased?
d. It is established that computers will be replaced every 5 years, and data projectors every 6 years. Printers will be replaced based on analysis of page count, age, and location. Data projector life may be extended when reasonable to do so.

d. What are the hidden costs?

**Area No. 3: Supportability**

a. Is the equipment serviceable in its current state?
b. Does this equipment depend on components that are no longer manufactured or available?
c. Is this equipment a support risk based on lack of dependability and staff productivity costs incurred due to loss of functionality and downtime?
d. Are resources available to train the college’s employees to use the technology?
e. Are there sufficient resources to support the technology?

**Area No. 4: Strategies for extending useful life of equipment**

a. Due to the high cost of replacement and the large installed base of computing equipment, annual review of equipment will take place.
b. Workstations that have been replaced through the formal obsolescence cycle (5 years), may be redeployed to other areas that may make use of them for general student use. Those workstations (trickle-downs) will not automatically be replaced on any obsolescence cycle.
c. Printers will be cycled through the college where they continue to meet needs.
d. Purchasing standards-based equipment affords more options for extending life and improves supportability.

e. Purchasing equipment based on flexibility projected a minimum of 3 years into the future, but not to exceed 6 years.

f. Leveraging and enhancing network services and infrastructure to maximize desktop functionality (i.e., infrastructure equipment and software maintenance to ensure efficiency and use of server and storage based computing).

g. All infrastructure equipment will be reviewed annually and upgraded as appropriate to ensure that infrastructure resources are in place to meet college needs.
A major challenge facing the college is providing adequate technical staffing to support the many uses of computing and technology. The goals are to enhance instructional technology support and improve the quality of technical service to students, faculty, and staff in support of learning and the college’s Strategic Focus and Priorities.

Discussions have occurred about the need for additional technical staffing and the need to review and reevaluate job responsibilities of the current centralized IT staff. Over the last 4 years, we have increased the number of computers on the campus, we have expanded use of technology to disciplines and departments that previously had not used these tools, and we have installed systems that are more complex requiring more technical training, expertise, and time to manage. Over the last 4 years, we have increased desktop technical support by 2 full-time PSA staff members.

Higher education standards for the ratio of desktop support staff to desktop computing equipment are commonly stated at an average of 250:1. Currently, the college supports approximately 2,163 computers functioning in a variety of instructional and student access areas, and in office and service areas used by faculty and staff. The total number of college printers is 149 units with 31 managed by 3 Computer Commons’ technicians. There is a total 7 permanent PSA FTE desktop support personnel on campus. Three permanent positions provide technical support for 754(commons, Choices, Q, Black Mountain and LSC) computers in highly specialized, complex imaged labs resulting in a ratio of 251:1. Four permanent FTE provide support for the remainder of the campus routine desktop computing environment that consists for a ratio of 352:1. PVCC’s total ratio of desktop computing equipment to installation, repair, and maintenance staff is approximately 309:1. The college’s goal is to arrive at a 250:1 ratio for the general purpose-computing environment.

The college Technology Helpdesk serves faculty, staff and students by providing assistance with various desktop computing and application access issues. The area is staffed with 1 full-time PSA permanent FTE and 1 full-time MAT permanent FTE.

The college infrastructure consists of a combined 50 Terabytes of storage, 95 servers both physical and virtual, 41 network switches, 82 network wireless access points, and a back-up tape Library. There are 506 VoIP handsets deployed, does not include supported emergency phones or KSC remodel, with an expansion anticipated of 85 new classrooms. The area is staffed with 2 MAT level FTE, and is also responsible for network health and monitoring as well as providing technical information and information security for the campus.

IT Operations which supports college-wide reporting needs and provides some support to various other initiatives such as IT risk assessment, student shadow systems, campus ID card system and disaster recovery is staffed with 1 MAT level FTE.

There is 1 MAT level FTE to support web page maintenance and development, and 1 MAT level FTE supporting application and database development.

The 2012 Educause Core Data Survey Results Section on IT Organization, Staffing
and Planning lists information on the FTE Students Supported per Central IT Staff Member for AA granting institutions.

**IT FTE per 1,000 Student FTE**

<table>
<thead>
<tr>
<th>IT Area</th>
<th>FTE</th>
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<tr>
<td>Helpdesk</td>
<td>.94</td>
</tr>
<tr>
<td>Desktop</td>
<td>1.13</td>
</tr>
<tr>
<td>Multi-media/LMS</td>
<td>.98</td>
</tr>
<tr>
<td>Operations</td>
<td>.37</td>
</tr>
<tr>
<td>Network/Telephony</td>
<td>.87</td>
</tr>
<tr>
<td>Application/Web/Project Mgt</td>
<td>1.10</td>
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In order to meet the current and future needs for technology support, an analysis and evaluation of staffing in relation to specific technology hardware and systems support requirements must be a continuous process of assessment. Planning and analysis of current staffing versus workload with the following outcomes will help IT continue to evolve towards a more desirable ratio of support versus the rapid growth of technology systems:

1. Communicate a clear and common mission that addresses support for technology college-wide.

2. Review and document all CURRENT uses of technology and support requirements, including specific skill sets needed. Considerations: user expertise, complexity of the environment (standardization, variety of hardware, software, program, operating systems, servers, use of equipment and hours of operation, the importance of the computer / server / system use to the area and college mission.

3. Perform “fit-gap” to identify immediate staffing and skill deficiencies.

4. Develop plan for filling gaps including providing the necessary support for developing and enhancing distance education courses.

5. Align the college technology-staffing ratio with known, best standards and specifically address technology development and support for PVCC. This will be used in planning for future technology needs.

6. Establish program of training, recognition, and opportunity for growth to improve the overall work culture for technical employees.
## APPENDIX A

**Accomplishments Toward Technology Strategic Issues**

**2013-2017**

### TECHNOLOGY STRATEGIC ISSUES 1 through 5

<table>
<thead>
<tr>
<th>Strategic Issue 1: How can PVCC align its structures, processes and procedures to support faculty, staff and student use of technology in support of learning?</th>
<th>1.1 Assess the current structures, processes, and procedures with respect to their efficiency and effectiveness in supporting faculty, staff, and student use of technology.</th>
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<td>• Assessed students’ appropriate and efficient use of technology resources in Computer Commons via survey.</td>
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<td>• Assessed use of instructional technology to be able to complete assignments, problem solve and learn key course concepts.</td>
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<td>• Developed pre- and post-survey for faculty Blackboard training to assess skills before and after training.</td>
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<td>• Helpdesk ticket feedback.</td>
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<td>• Faculty surveyed their classes regarding the effectiveness of the use of technology.</td>
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<td>• Faculty surveyed regarding the use of technology.</td>
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<table>
<thead>
<tr>
<th>1.2 Recommend changes in order to make PVCC more effective in supporting faculty, staff, and student use of technology.</th>
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<tbody>
<tr>
<td></td>
<td>• Developed campus Software Procedures for ordering, cataloging and delivery to faculty and staff.</td>
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<tr>
<td></td>
<td>• Raised awareness for training through custom and diverse methods of advertising to students, faculty and staff.</td>
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<tr>
<td></td>
<td>• Completed upgrade of the campus wireless network.</td>
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<tr>
<td></td>
<td>• Implemented dual boot iMac computers in the Q Building and Black Mountain site for more effective support.</td>
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<tr>
<td></td>
<td>• Provided mobile computers and additional computer training to courses that directly address underprepared students.</td>
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<tr>
<td></td>
<td>• Refined campus hardware and networking standards.</td>
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<td></td>
<td>• Refined desktop and printer obsolescence cycles and redistribution.</td>
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<th>1.3 Support implementation of approved changes.</th>
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<tr>
<td></td>
<td>• Funding has been allocated for employee and student training, instructional technology and technology helpdesk.</td>
</tr>
<tr>
<td></td>
<td>• Instructional Designer position funded.</td>
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<tr>
<td></td>
<td>• Additional Desktop Technician positions funded.</td>
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<td></td>
<td>• Google Guides and Canvas Guides</td>
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</table>
### Strategic Issue 1: How can technology support faculty, staff, and student learning?

#### 1.4 Develop processes to integrate and coordinate college efforts to support faculty, staff, and student use of technology for learning.

- Expanded campus Technology Helpdesk services.
- Active participation in district-wide eLAG
- Formal collaboration process continued between instructional technology and IRTS on application and database development.
- Collaboration between EOL&T and Technology Training to provide training sessions during Summer Fun Week.
- OER website
- Working with SCC to backup data from OER math system.

#### 1.5 Develop a communication system enabling the integration and coordination of college efforts to support faculty, staff, and student use of technology for learning.

- Re-engineered Automated Planning & Budgeting System to conform to assessment of operational planning.
- Developed student wait list system (queue management) for Financial Aid, Advising and A&R.
- Developed a Bookstore Data Feed for class and enrollment information.
- Spark instant messaging
- Purchased SPOL, attended training and began planning
- Redesigned PVCC website
- Blog for President and Points of Pride

### Strategic Issue 2: How can technology enhance learning?

#### 2.1 Provide professional development opportunities for faculty and staff that focus on the issue of technology and learning.

- Support to attend National Media Consortium attendance
- Support to attend League for Innovation Conference on Information Technology
- Support to attend Educause Annual Conference
- Support to attend annual Educause Security Professionals Conference
- Support to attend Active Directory Training.
- Several of the Technology Training offerings have focused on how to use technology to enhance learning (web development, Blackboard/Canvas, ePortfolio).
- Summer Fun Week is offered every year: 4 days of focused hands-on technology workshops and assisted practice lab time. Is approved for non-academic advancement credit. Workshops offered included Blackboard/Canvas, Respondus, Building Web Pages with Dreamweaver, and Creating PowerPoint Presentations, etc.
<table>
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<tr>
<th>Strategic Issue 3: What systems are needed to promote adoption of new technology?</th>
<th>3.1. Expand instructional technology services and resources.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2.2 Support existing programs that use technology to promote learning.</strong></td>
<td><strong>2.3. Pilot initiatives integrating the use of technology with learning.</strong></td>
</tr>
<tr>
<td>• Canvas and OER Conferences</td>
<td>• Piloted iPad use in First Year Experience cohorts, Children’s Literature and Teacher education program.</td>
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<td>• District-wide Learning Management Implementation (Canvas)</td>
<td>• Expanded mobile labs.</td>
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<td></td>
<td>• Created General Education Assessment (In-class assessment application)</td>
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<td>• Created PAWS as an athlete early alert system to help student athletes succeed.</td>
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<td></td>
<td>• Provided additional ADA workstations for students and Disability Resources office.</td>
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<td></td>
<td>• Implemented student listserv.</td>
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<td>• Implemented Puma Press blog.</td>
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<td></td>
<td>• Forums have been provided for instruction, discussion and peer support on the use of technology in instruction, e.g., Using the Web for Instruction, Using Multi-media for Instruction, and Using Canvas in Instruction.</td>
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<tr>
<td></td>
<td>• Process has been expanded for faculty to request support in creating and offering online courses.</td>
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<tr>
<td></td>
<td>• Online Learning Group (faculty group teaching online) provides input to online program and offerings.</td>
</tr>
<tr>
<td></td>
<td>• Center for Distance Learning expanded course offerings and types of delivery methods.</td>
</tr>
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<td></td>
<td>• Webinar promotion and participation</td>
</tr>
<tr>
<td></td>
<td>• iGoal enhancement</td>
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</tbody>
</table>
| 3.2. Determine current college resource allocations for instructional technology and technology training. | • The Dean of Information Technology and VP Academic Affairs manage the funding for instructional technology and training and will request additional funding as needed.  
• TCT meets, discusses and evaluates needs on an ongoing basis. |
|---|---|
| 3.3. Continue the broad offerings of college-wide technology training. | • Coordinated Summer Fun Weeks trainings schedule and offerings.  
• Conducted a variety of workshops on Blackboard/Canvas, Microsoft Office, SIS, etc.  
• Expanded schedule for open lab for drop in training.  
• Expanded training opportunities for adjunct faculty. |

**Strategic Issue 4: How can we leverage technology to advance, enrich, and support learning in and out of class?**

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<tr>
<th>4.1. Conduct technology trend analysis</th>
<th>• See TECHNOLOGY TREND ANALYSIS FOLLOWING THIS DOCUMENT</th>
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</table>
| 4.2. Establish partnerships with external groups in terms of technology | • Technology Trainer co-chair of Maricopa Technology Training Team.  
• Instructional Designer co-chair of Maricopa Academic Technology Alliance  
• Instructional Programmer supports district-wide web application design initiatives and info graphics.  
• Partnerships continue with MCLI and other colleges.  
• Systems and software sharing occurs in partnership with other colleges (i.e., support of Mind Leaders project; online class schedule; Blackboard/Canvas information sharing, etc.)  
• Partnership through Regional Training Committee of trainers from each of the 10 colleges for the purpose of sharing information, training materials developed, and train-the-trainer opportunities.  
• Dean of IT is on CCCOER Executive Board (National Consortium for OER Advocacy). |
| 4.3. Provide resources and opportunities for faculty and staff to keep current with existing and emerging trends in technology. | • Office computers are current technology and are able to run new levels of software to allow for experimentation with new and emerging technologies (i.e., videoconferencing, movie-making).  
• Migrated to Google Mail and Calendar.  
• Migrated to Windows 7 and latest Mac OSX.  
• Migrated to Office 2010.  
• Planning for migration to Windows 8 and Office 2013. |
|---|---|
| Strategic Issue 5: How can PVCC use technology to provide students greater access to college resources? | 5.1. Increase use of infrastructure resources by faculty and staff | • Migrated to Active Directory.  
• Setup production Microsoft Software Control and Configuration Management (SCCM) environment.  
• Migrated to new enterprise virus protection software, Microsoft Forefront.  
• Upgraded campus-wide wireless network.  
• Expanded use of file sharing for classes.  
• Created secure web sites for faculty materials distribution to students.  
• Upgraded ID Card System.  
• Continued supporting annual United Way silent auction and Fine Arts Auction applications.  
• Developed several Sharepoint sites.  
• Implemented Door Access System.  
• Implemented pay for print system for students. |
| 5.1.2. Acquire appropriate number of servers, storage and backup equipment and software | • Increased number of servers from 40 to 67.  
• Refined server virtualization environment.  
• Continued server and infrastructure obsolescence plan.  
• Implemented 4T SAN, and subsequent 10T NetApp.  
• Upgraded CCTV System. |
| 5.2. Ensure adequate and current networking technology on campus | • Upgraded campus wireless network  
• Completed Phase III of VoIP migration  
• Opened Life Sciences, Black Mountain site, Q and Health Sciences buildings. |
Appendix B
Focus and Priorities 2013 – 2017

GOAL ONE: EMPOWER ALL STUDENTS TO SUCCEED

1.1 Increase success for all students by increasing participation in academic and student success/engagement initiatives and programs.
1.2 Improve student learning by assessing learning outcomes and completion of program reviews (in-class and out-of-class programs/services).
1.3 Increase course, certificate, and degree (associate and baccalaureate) completion for all students by implementing comprehensive and collaborative programs and services which support access and pathways.
1.4 Close student achievement gaps in core academic areas.
1.5 Increase the percentage of students who successfully complete reading, mathematics, and English developmental course sequences through the first college-level course.
1.6 Enrich the student and employee learning experience by integrating diversity and inclusion strategies.
1.7 Increase student access to classes through alternative course scheduling and delivery formats (e.g. online, hybrid, short term, late start, OER infused).

GOAL TWO: ENGAGE AND INVEST IN COMMUNITY

2.1 Cultivate community relationships and increase the number of partnerships that support student success, access, and the college mission while meeting community needs and raising the college’s profile.
2.2 Deliver programs and services to address the changing needs of the community with a focus on the Black Mountain service area.
2.3 Increase student and employee contributions to further positive social change and civic/global engagement, accomplished through expanded community collaborations and outreach programs.
2.4 Increase the number of community members participating in lifelong learning, wellness, and cultural, on-campus activities and programs.

GOAL THREE: EMPOWER EMPLOYEES TO EXCEL

3.1 Enrich learning and organizational effectiveness by increasing the diversity of the employee workforce.
3.2 Increase employee effectiveness by participation in professional development and wellness programs.
3.3 Use employee performance evaluations to maximize employee strengths/expertise and organizational effectiveness.

GOAL FOUR: EXPAND AND MAXIMIZE RESOURCES

4.1 Increase operational efficiency by implementing strategies for sustaining facilities, human/capital resources, and One Maricopa Initiatives.
4.2 Employ systematic processes for responsible allocation of resources.
4.3 Increase external resources to promote access and engagement for students from underrepresented groups and to meet workforce training needs.

President’s highest priorities for 2013

creating empowerment through learning
Appendix C

Information Technology Guidelines
Paradise Valley Community College

Contents

1. General Use Guidelines

1.1. Responsibilities

1.1.1. Users of college information resources are expected to abide by the policies and procedures of Paradise Valley Community College (PVCC), the Maricopa County Community College District (MCCCD) Technology Resource Standards, and any applicable local, state, federal or international law.

1.1.2. Official policies and administrative regulations may be found in the college catalog, class schedule, student handbook, and employee policy group manual, and MCCCD Governing Board materials.

2. College Resources

2.1. Networks

2.1.1. The college network infrastructure through Information Resources and Technical Support (a.k.a. IRTS) provides connectivity to college and MCCCD computing resources such as servers, printers, storage, and the Internet.

2.1.2. IRTS is responsible for the maintenance of the college networks, including network hardware, software, and protocols. All network devices must be approved by IRTS for connection to the network. Installation will be done by IRTS.

2.1.3. PVCC shares a subnet of a Class B IP license with MCCCD. IRTS is responsible for the assignment of these numbers on the college network along with the associated domain name service.

2.1.4. PVCC reserves the right to install network filtering and monitoring software and hardware such as Intrusion Detection Systems to protect its internal networks from external network traffic.

2.1.5. The college does not allow private machines to connect to college networks.

2.2. Centralized Computing

2.2.1. The college provides shared computing resources such as servers so that faculty, staff and students can have access to resources like electronic mail, Internet information, and college administrative and academic systems.
2.2.2. Certain resources such as the student records system are considered confidential resources and have a higher security level for access and data protection.

2.2.3. IRTS is responsible for the maintenance of the centralized computing resources including system administration, backups, and information security.

2.3. Desktop Computing
2.3.1. Faculty and staff have a desktop computer provided by the college. All employees must abide by the Technology Resource Standards and all applicable policies and law in use of Maricopa’s computing resources.

2.4. Departmental Computing Facilities
2.4.1. Individual departments may maintain computing facilities for a specific program or purpose.
2.4.2. Departmental computing facilities may have specific use policies in addition to college policies.

2.5. Public Computing Facilities
2.5.1. PVCC maintains open computing facilities for use by the college public.
2.5.2. Public computing facilities may have specific use policies in addition to college policies.

3. Electronic Access

3.1. Accounts
3.1.1. Accounts are established through a helpdesk request to IRTS.
3.1.2. Authorized access to college networks and servers can only be made through an established account.
3.1.3. Accounts are unique to each user and are nontransferable.
3.1.4. Accounts are password-protected to prohibit unauthorized access. It is the responsibility of the user to protect the privacy of his/her own password.

3.2. Electronic Mail
3.2.1. The college provides access to electronic mail to support teaching, learning, and service to the community. The purpose of this guideline is to ensure college resources are used to this end and that the use of electronic mail services encourages sharing information, improves overall communication, and the exchange of ideas.
3.2.2. The use of any college resources for electronic mail must be related to official college business. Incidental and occasional personal use of electronic mail may occur when such use does not generate a direct cost to the college.
3.2.3. Only college faculty, staff and students who have received permission via an authorized account are authorized users of the college’s electronic mail system.

3.2.4. Prohibited uses of electronic mail while using college resources include, but are not limited to, the following: use for personal monetary gain or commercial purposes; sending documents in violation of copyright laws; capturing and “opening” of electronic mail except by the intended recipient or as required by authorized employees to diagnose and correct delivery problems; use of electronic mail to harass or intimidate others or to interfere with the ability of others to conduct college business; and the construction of electronic mail messages so that the original sender appears to be someone else.

3.2.5. Although the college/district makes reasonable efforts to maintain the integrity and effective operation of the electronic mail system, the system should not be regarded as a secure medium for the communication of sensitive or confidential information. In addition, neither the privacy of an individual’s use of the college’s electronic mail nor the confidentiality of particular messages can be guaranteed.

3.2.6. Communication of college employees in the form of electronic mail may constitute “correspondence” and therefore is considered public record.

3.3. Web Servers

3.3.1. The college provides servers capable of providing information via the Internet.

3.3.2. The college reserves the right to remove, without notice, any material (which is a violation of any relevant standard) which in its sole discretion deems unsuitable for dissemination via a college web server.

3.3.3. All web page developers shall use the graphic identity guide in order that a consistent, attractive, and professional image for the college is maintained.

3.4. Internet Access

3.4.1. PVCC provides access to the Internet that is intended for academic, research, learning, and administrative purposes.

3.4.2. The college does not claim responsibility for the content that may be found on the Internet via the computer equipment maintained by the college.

4. Software

4.1. Standard Software

4.1.1. The College will provide the following software applications to every staff and faculty desktop/laptop computer user:

4.1.1.1. Operating System software
4.1.1.2. **Word Processing software**  
4.1.1.3. **Internet Browser software**  

4.1.2. The college may provide software on a shared or monitored basis which allows the sharing of licensed software. There may be times when all licenses are in use.

4.1.3. The college may provide additional software that is widely used, such as spreadsheet, database, presentation, or grading software.

4.2. **Special Software**  
4.2.1. The college may provide software required for a specific purpose.

4.3. **Purchasing Software**  
4.3.1. Software purchases are monitored through IRTS to ensure compatibility and licensing adherence.

4.3.2. Individual departments may purchase special software but must do so in conjunction with IRTS review to ensure compatibility with college computer equipment.

4.4. **Personal Software**  
4.4.1. Employees may not install personally purchased software on their assigned desktop/laptop computers.

4.5. **Copyright Issues**  
4.5.1. The use of software on college equipment must follow the licensing and copyright terms as set forth by the manufacturer of the software. Further, compliance with MCCCD Copyright Guidelines is required. They can be found at [http://www.maricopa.edu/legal/ip/copyright.htm](http://www.maricopa.edu/legal/ip/copyright.htm)
Appendix D

Maricopa's Technology Resource Standards

Introduction

The Maricopa County Community College District (MCCCD) provides its students, employees, Governing Board members and the public with access to information resources and technologies. MCCCD recognizes that the free exchange of opinions and ideas is essential to academic freedom, and the advancement of educational, research, service, operational, and management purposes, is furthered by making these resources accessible.

Arizona constitutional and statutory mandates requires that MCCCD resources, including technology, be used only for the public’s business, and not for private purposes. Those mandates apply to all MCCCD public officials—employees of every kind and the Governing Board. The aim of those laws is to safeguard the use of resources, including technology resources, acquired and maintained with public funds. Compliance with other laws—both federal and state—also dictates the need for standards for the use of MCCCD technology resources. In some cases, the Governing Board policies emphasize the importance of compliance with the law such as the requirement to adhere to copyright laws. Governing Board policies also establish MCCCD’s own standards, such as the directive that all persons within the MCCCD community be treated in a manner that is humane, fair and dignified.

This administrative regulations established standards for the use of MCCCD technology resources. They should be seen as supplementing, and not in lieu of, Governing Board policy, applicable law and other applicable administrative regulations such as Administrative Regulation 4.3 “Electronic Communications.”

General Responsibilities

Technology resources (including, but not limited to, desktop and laptop systems, printers, central computing facilities, MCCCD-wide or college-wide networks, local-area networks, telephones, facsimile machines, scanners, access to the Internet, electronic mail and similar electronic devices and information) of the MCCCD are available to MCCCD Governing Board members, employees, students and, in a limited number of cases, MCCCD contractors and the public. Use of all those resources is subject to the standards set forth in this regulation (Standards).

The first screen that each MCCCD computer exhibits on starting up advises users of these Standards and requires an acknowledgment before the user may proceed to the next screen. Additionally, all MCCCD employees are responsible for annually acknowledging receipt of the Blue Book, which contains this regulation. So all users of MCCCD technology resources are presumed to have read and understood the Standards. While the Standards govern use of technology resources MCCCD- wide, an individual community college or center may establish guidelines for technology resource usage that supplement, but do not replace or waive, these Standards.
Use of Non-MCCCD Technology

Under Arizona’s public records law, MCCCD is required to transact business so that its records are accessible and retrievable. The policy underlying the law is that work done in the name of the public be transparent. Thus, any member of the public may request public records and, except in a few specific instances, are entitled to get copies of them.

Each individual employee or Governing Board member is responsible for ensuring that MCCCD records that he or she initiates or receives are retained for the period of time required by and disposed of according to mandates established by Arizona State Libaray, Archives and Public Records—the state agency tasked with setting standards for record retention. Therefore, an employee’s or Governing Board member’s use of non-MCCCD technology resources for communication of any type of MCCCD business is heavily discouraged because those records are less capable of being managed according to MCCCD’s process for ensuring retention, retrieval and disclosure set forth in Administrative Regulation 4.15 “Retrieval, Disclosure and Retention of Records.”

Additionally, an MCCCD employee who receives a communication allegedly from another MCCCD employee using a non-MCCCD e-mail address is not required to respond substantively to that e-mail. The employee receiving the e-mail is entitled to verify that the sender is whom he or she says that he or she is. The employee receiving the e-mail may request that the sender provide the information or inquiry set forth in the e-mail via hard-copy form.

Acceptable Use

Use of MCCCD’s technology resources, including websites created by MCCCD employees and students, is limited to educational, research, service, operational and management purposes of the MCCCD and its member institutions. Likewise, data, voice, images and links to external sites posted on or transmitted via MCCCD’s technology resources are limited to the same purposes.

Frequently, access to MCCCD’s technology resources can be obtained only through use of a password known exclusively to the MCCCD employees, Governing Board members or students. It is those users’ responsibility to keep a password confidential. While MCCCD takes reasonable measures to ensure network security, it cannot be held accountable for unauthorized access to its technology resources by other persons, both within and outside the MCCCD community. Moreover, it cannot guarantee employees, Governing Board members and students protection against reasonable failures. Finally, under certain limited circumstances defined in Administrative Regulation 4.15 “Retrieval, Disclosure and Retention of Records,” certain MCCCD employees are authorized to access information on an MCCCD technology device.

It is not Maricopa’s practice to monitor the content of electronic mail transmissions, files, images, links or other data stored on or transmitted through Maricopa’s technology resources.
The maintenance, operation and security of Maricopa’s technology resources, however, require that network administrators and other authorized personnel have access to those resources and, on occasion, review the content of data and communications stored on or transmitted through those resources. Any other review may be performed exclusively by persons expressly authorized for such purpose and only for cause. To the extent possible in the electronic environment and in a public setting, a user’s privacy will be honored. Nevertheless, that privacy is subject to Arizona’s public records laws and other applicable state and federal laws, as well as policies of Maricopa’s Governing Board all of which may supersede a user’s interests in maintaining privacy in information contained in Maricopa’s technology resources.

**Incidental Computer and Technology Usage**

Limited incidental personal use of MCCCD technology resources including through use of personal e-mail systems is permitted, except as described in item 16 under “Prohibited Conduct.” MCCCD employees are responsible for exercising good judgment about personal use in accordance with this regulation, Colleges’ consistent local guidelines and MCCCD ethical standards. Personal use refers to activities which only affect the individual and that are not related to an employee’s outside business. MCCCD employees are required to conduct themselves in a manner which will not raise concern that they are or might be engaged in acts in violations of the public trust. Refer to the Guidelines for Incidental Computer Usage for the Maricopa Community Colleges (Appendix AS-8) and Guidelines for Incidental Telephone Usage for the Maricopa Community Colleges (Appendix AS-9).

**Prohibited Conduct**

The following is prohibited conduct in the use of MCCCD’s technology resources:

1. Posting to the network, downloading or transporting any material that would constitute a violation of MCCCD contracts

2. Unauthorized attempts to monitor another user’s password protected data or electronic communication, or delete another user’s password protected data, electronic communications or software, without that person’s permission

3. Installing or running on any system a program that is intended to or is likely to result in eventual damage to a file or computer system

4. Performing acts that would unfairly monopolize technology resources to the exclusion of other users, including (but not limited to) unauthorized installation of server system software

5. Hosting an unauthorized website that violates the .EDU domain request.

6. Use of technology resources for non-MCCCD commercial purposes, including to advertise personal services, whether or not for financial gain.

7. Use of software, graphics, photographs, or any other tangible form of expression that would
violate or infringe any copyright or similar legally-recognized protection of intellectual property rights.

8. Activities that would constitute a violation of any policy of MCCCD’s Governing Board, including, but not limited to, MCCCD’s non-discrimination policy and its policy against sexual harassment.

9. Transmitting, storing, or receiving data, or otherwise using technology resources in a manner that would constitute a violation of state or federal law, or MCCCD policy or administrative regulation including, but not limited to, obscenity, defamation, threats, harassment, and theft.

10. Attempting to gain unauthorized access to a remote network or remote computer system.

11. Exploiting any technology resources by attempting to prevent or circumvent access, or using unauthorized data protection schemes.

12. Performing any act that would disrupt normal operations of computers, workstations, terminals, peripherals, or networks.

13. Using technology resources in such a way as to wrongfully hide the identity of the user or pose as another person.

14. Allowing any unauthorized access to MCCCD’s technology and non-technology resources.

15. Making personal long distance or other toll calls, except where the charges for the calls are incurred directly by the caller or arrangements are otherwise made at the time of the call to directly bill the caller.

16. Intermittent use of technology resources that interferes with the performance of an employee’s main responsibilities.

17. Use of technology resources to market or conduct other activities on behalf of a third-party regarding the “hosting” of an event that is prohibited under MCCCD’s Use of College Facilities administrative regulation.

18. Conducting District or college-related business using any electronic mail account other than one hosted or provided by MCCCD, and approved by the Vice Chancellor of Information Technology Services, even when the e-mail account copies all outgoing and incoming messages to the MCCCD hosted account.

19. Deleting or altering a technology public record in violation of public records retention requirements, or in anticipation of receiving or after receipt of a public records request, subpoena or a complaint filed as part of an MCCCD grievance, investigation or review, or other lawful request for the record.
20. Deleting or altering a technology record on an MCCCD device in anticipation or after receipt of a public records request, subpoena or a complaint filed as part of an MCCCD grievance, investigation or review, or other lawful request for the records where the record may demonstrate a misuse of technology resources under this regulation.

**Review and Approval of Alternate E-Mail Account Systems**

The prior review and approval by the Vice Chancellor of Information Technology is required for the implementation of alternate College electronic mail account systems. Requests will be evaluated based upon the following considerations:

1. The system must be compatible and interoperable with the MCCCD e-mail system. All information within the e-mail system must meet the standards and authorize District Office access as specified in Administrative Regulation 4.15, “Retrieval, Disclosure and Retention of Records.”

2. Any proposed changes to an MCCCD’s entity’s e-mail system with e-discovery implications must be approved in advance during the planning stages as specified in Administrative Regulation 4.15, “Retrieval, Disclosure and Retention of Records.”

**Disclaimer**

The home page of an MCCCD web site must display, or link to, the following disclaimer in a conspicuous manner:

*All information published online by MCCCD is subject to change without notice. MCCCD is not responsible for errors or damages of any kind resulting from access to its internet resources or use of the information contained therein. Every effort has been made to ensure the accuracy of information presented as factual; however errors may exist. Users are directed to countercheck facts when considering their use in other applications. MCCCD is not responsible for the content or functionality of any technology resource not owned by the institution.*

*The statements, comments, or opinions expressed by users through use of Maricopa’s technology resources are those of their respective authors, who are solely responsible for them, and do not necessarily represent the views of the Maricopa County Community College District.*
Information Accuracy and Marketing Standards

In order to help ensure that the most accurate information sources are reflected on web pages, information should be cited, sourced or linked from the website of the official District or college custodian responsible for the particular subject. In addition, the design of web pages shall reflect established marketing standards with respect to the imaging and using of MCCCD marks as outlined in the marketing standards handbook and Use of Marks administrative regulation.

Complaints and Violations

Complaints or allegations of a violation of these standards will be processed through Maricopa’s articulated grievance procedures or resolution of controversy.

Upon determination of a violation of these standards, MCCCD may unilaterally delete any violative content and terminate the user’s access to MCCCD’s technology resources. It is the user’s responsibility to demonstrate and/or establish the relevance of content in the event that a content complaint is made official. Users retain the right to appeal actions through MCCCD’s grievance procedures or resolution of controversy.

AMENDED through the Administrative Regulations approval process, June 27, 2011
AMENDED through the Administrative Regulations approval process, January 10, 2011
AMENDED through the Administrative Regulations approval process, February 24, 2010
AMENDED through the Administrative Regulations approval process, November 3, 2008
AMENDED through the Administrative Regulations approval process, December 15, 2004
APPROVED, March 2, 1999
### Appendix E

#### TCT SWOT Analysis

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Opportunities</th>
<th>Threats/Internal</th>
<th>Threats/External</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology enhanced environment</td>
<td>Insufficient resources (human/monetary) to fully support exploration of innovative concepts and implementation of projects.</td>
<td>More technology for less dollars</td>
<td>Lack of future funding</td>
<td>Digital divide</td>
</tr>
<tr>
<td>Excellent guidelines for replacement</td>
<td>Low pay for tech positions; does not attract qualified and talented staff</td>
<td>Students bringing personal mobile devices (cell/netbooks/iPads) to the college</td>
<td>Access to high bandwidth online resources</td>
<td>Economy</td>
</tr>
<tr>
<td>TCT credibility</td>
<td>Insufficient electrical power infrastructure in older buildings</td>
<td>Growth of hybrid/online classes (flexible classroom space scheduling)</td>
<td>Loss of District Support for technology</td>
<td>Competition from other educational institutions for IT staff and students</td>
</tr>
<tr>
<td>College has innovators, leaders, and collaborators</td>
<td>Lack of Technology fee to adequately cover student use of technology</td>
<td>Increasing technical competence of students and employees</td>
<td>Need for more faculty input on Canvas decisions</td>
<td>Fluctuation of enrollment</td>
</tr>
<tr>
<td>Training opportunities</td>
<td>Insufficient tech support in expertise and coverage for college needs</td>
<td>Expanded use of technology by faculty for instruction</td>
<td>Instability of Canvas</td>
<td>Vulnerability &amp; security issues of all systems (i.e., hackers)</td>
</tr>
<tr>
<td>Experienced, knowledgeable, innovative and collaborative technical support</td>
<td>Implementation of and support from new LMS provider</td>
<td>District-wide collaboration/sharing</td>
<td>Insufficient replacement funds to support new technology purchases</td>
<td>High Bandwidth applications</td>
</tr>
<tr>
<td>Strengths</td>
<td>Weaknesses</td>
<td>Opportunities</td>
<td>Threats /Internal</td>
<td>Threats/External</td>
</tr>
<tr>
<td>----------------------------------------------------</td>
<td>--------------------------------------------------------</td>
<td>---------------------------------------------------</td>
<td>--------------------------------------------------------</td>
<td>-----------------------------------------------------------</td>
</tr>
<tr>
<td>Planning &amp; budgeting loop</td>
<td>Supporting multiple sites</td>
<td>Open Source software, systems and resources</td>
<td>Diminishing funds for new and replacement technology</td>
<td>Theft of equipment</td>
</tr>
<tr>
<td>Access to technology in and out of the classroom</td>
<td>Reliance on bond funds for hardware</td>
<td>Vendor outreach and grant funding</td>
<td>District WAN saturation limiting access to web based resources for instruction</td>
<td>Other institutions offer higher pay; PVCC loses qualified and talented workers to better paying positions</td>
</tr>
<tr>
<td>Program specific technology support</td>
<td>Electronic communication overload is syphoning resources and time</td>
<td>One Maricopa</td>
<td>Computer obsolescence and trickle down deployment</td>
<td>Loss of net neutrality</td>
</tr>
<tr>
<td>Bond fund support for technology</td>
<td>Bond fund end for technology</td>
<td></td>
<td>BYOD (Bring Your Own Device)</td>
<td></td>
</tr>
<tr>
<td>Plan for supplementing funds for technology post bond campus-wide</td>
<td>Lack of backup generator for Computer Room</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tech support is in one division</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk Assessment--Constantly assessing the state of funding and needs</td>
<td>Dollar ITS support inconsistent for SIS, HRMS and CFS</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Efficient and effective use of technology</td>
<td></td>
<td></td>
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</tbody>
</table>

**Risk Assessment** -- Constantly assessing the state of funding and needs

<table>
<thead>
<tr>
<th><strong>Efficient and effective use of technology</strong></th>
<th><strong>Weaknesses</strong></th>
<th><strong>Opportunities</strong></th>
<th><strong>Threats /Internal</strong></th>
<th><strong>Threats/External</strong></th>
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</thead>
<tbody>
<tr>
<td>Technology Strategic Plan 2013-2017</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strengths</td>
<td>Weaknesses</td>
<td>Opportunities</td>
<td>Threats/Internal</td>
<td>Threats/External</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>------------</td>
<td>---------------</td>
<td>------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Have support for developing online/hybrid courses</td>
<td></td>
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<td></td>
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<tr>
<td>Plan for future technology needs</td>
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<tr>
<td>Web presence and content management system</td>
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<td>Center for Teaching &amp; Learning</td>
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</table>
## Appendix F

**PVCC IT Bond Summary 03-01-13**

**Paradise Valley Community College**

**2004 Capital Program IT Allocations**

<table>
<thead>
<tr>
<th></th>
<th></th>
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<tbody>
<tr>
<td>FY 04/05</td>
<td>$500,000</td>
<td>$173,944</td>
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<td>FY 05/06</td>
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<td>$618,366</td>
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<td>FY 06/07</td>
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<td>INFRASTRUCTURE</td>
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<td>FY 07/08</td>
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<td>PV North $500,000 Card Access $1,062,150</td>
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<td>FY 08/09</td>
<td>$333,556</td>
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<td>FY 09/10</td>
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<td>$850,000 Life Sciences **</td>
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<td>FY 10/11</td>
<td>$513,300</td>
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<td>FY 11/12</td>
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<td>$102,000</td>
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<td>$191,000 CCTV</td>
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<td>FY 12/13</td>
<td>$543,000</td>
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<td>Q Building $191,000 CCTV $850,000 Life Sciences **</td>
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<tr>
<td>FY 13/14</td>
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<td>Q Building $191,000 CCTV $850,000 Life Sciences **</td>
<td>$1,179,000</td>
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<tr>
<td>FY 14/15 (life without bond)</td>
<td>LS &amp; Blk Mtn</td>
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<td>FY 15/16 (life without bond)</td>
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<td>FY 16/17 (life without bond)</td>
<td>Q Bldg</td>
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<td>$100,000</td>
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<td>$620,000</td>
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<tr>
<td>College IT Project Totals</td>
<td>$500,000</td>
<td>$3,526,742</td>
<td>$1,124,975</td>
<td>$2,680,000</td>
<td>$450,000</td>
<td>$1,481,432 $2,901,724 $891,000</td>
<td>$13,555,873 $8,951,305</td>
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</tbody>
</table>

* $200,000 annually from Occ. Ed
is needed in **Addition** to the estimates above
Appendix G

Gartner Hype Cycles for Emerging Technologies