Santa Rosa Junior College

Strategic Master Plan for Technology
2009 and Beyond
INSTITUTIONAL TECHNOLOGY GROUP (ITG)

Current Membership:

<table>
<thead>
<tr>
<th>Name</th>
<th>Position/Title</th>
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<tbody>
<tr>
<td>Ken Fiori (Co-Chair)</td>
<td>Director of Computing Services</td>
</tr>
<tr>
<td>Will Baty (Co-Chair)</td>
<td>Dean, Learning Resources and Educational Technology</td>
</tr>
<tr>
<td>Ruth McMullen</td>
<td>Dean, Matric &amp; Student Dev</td>
</tr>
<tr>
<td>Mike Flaa</td>
<td>Supervisor, Data/Telecommunication</td>
</tr>
<tr>
<td>Robert Chudnofsky</td>
<td>Dean, Instruction &amp; Technical Services, Petaluma Campus</td>
</tr>
<tr>
<td>Russ Bowden</td>
<td>Manager, Media Services</td>
</tr>
<tr>
<td>Rich Abrahams</td>
<td>Academic Computing Coordinator</td>
</tr>
<tr>
<td>Robert Ethington</td>
<td>Student Advisor/Technology Coordinator</td>
</tr>
<tr>
<td>Walter Chesbro</td>
<td>Faculty</td>
</tr>
<tr>
<td>Carmen Sheldon</td>
<td>Faculty</td>
</tr>
<tr>
<td>Matt Pearson(ex-off)</td>
<td>Ex-officio-Mgr, Media Serv-Pet</td>
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COMMITTEE FUNCTION:
This group is advisory to Institutional Planning Council (IPC) and provides recommendations and input regarding Districtwide needs as they relate to the integration of technology. The group is responsible for making recommendations in the following areas:

- planning and coordination
- policy development
- acquisitions
- implementation

Within these four broad areas it is envisioned that this group will provide overall leadership and direction to our efforts throughout the District. Specific duties include:

- Serve as a representative body of primary technology stakeholders
- Develop a strategic planning model that identifies and ranks District technology needs
- Establish specific goals and implementation guidelines
- Create and publish District standards for technology purchase and support
- Approve purchases of equipment to ensure compliance with standards
- Evaluate the impact of technology on instruction and the provisions of support services
- Update and review technology related planning documents as appropriate

COMMITTEE STRUCTURE:
6 Administrators (permanent), 1 Ex-officio-Mgr, and 3 Faculty
Executive Summary

The Strategic Master Plan for Information Technology at Santa Rosa Junior College is an attempt to define critical needs and technology trends for the next five years. As such, it represents a roadmap of where we need to go with information technology implementation. To draft this plan, the Institutional Technology Group, composed of key personnel involved in the planning, implementation, and support of various technologies, was formed as a presidential advisory group. It is the responsibility of this group to project five years into the future and produce the “Strategic Master Plan for Information Technology”.

Basic Assumptions

The Technology Master Plan is a five-year perspective and identifies ongoing technology trends and needs for the District. The following assumptions are of particular significance:

- The focus is comprehensive, District-wide, and inclusive of multiple instructional sites.
- Adequate funding levels need to be identified to successfully implement the plan.
- Baselines for technology, support, and training need to be established.
- The plan is a “living document” and will be reviewed and adjusted on an annual basis, as technology and needs evolve.
- The plan is modular in nature and most of the initiatives can be implemented independent of the whole.

Technology Themes

The items described in this document cover a broad range of complex technologies. The following bulleted list is a simple summary of the common themes that appear throughout the full report.

- Connecting students with appropriate technology is priority one.
- Existing successful technologies need appropriate support and should be replaced on a scheduled cycle. The plan uses the Total Cost of Ownership model (TCO model), which is the industry standard method of defining the cost of acquiring, implementing, and supporting technology.
- Our students and staff want and need current technology.
- Our students and staff expect technology to shrink in size, become faster, more secure, and easier to use.
- Wireless technology will continue to grow in importance.
- The infrastructure that delivers and supports technology must be constantly improved.
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Institutional Technology Group
The Sonoma County Community College District recognizes that technology can be successful only if its implementation is well planned and communicated. To this end, a working group ITG (Institutional Technology Group), composed of key personnel involved in the planning, implementation and support of various technologies was formed as a presidential advisory group. It is the responsibility of this group to project five years into the future and produce the “Strategic Master Plan for Technology”. In accomplishing this task, the committee has attempted to solicit the collective wisdom of both internal and external technology experts and focus this knowledge into a coherent vision for technology at Santa Rosa Junior College. The following document summarizes that vision.

Assumptions
The Technology Master Plan is a five-year perspective and attempts to identify ongoing technology trends and needs for the District. The following assumptions are included:

- The focus is comprehensive and inclusive of multiple instructional sites.
- Adequate funding levels need to be identified to successfully implement the plan.
- Baselines for technology, support, and training need to be established.
- The plan is a “living document” and will be reviewed and adjusted on an annual basis, as technology and needs evolve.
- The plan is modular in nature and most of the initiatives can be implemented independent of the whole.

Vision Statement
It is the vision of this institution that appropriate technology in the hands of students, faculty, and staff will empower them to conquer the challenges of the 21st Century. Therefore, this plan will identify sustainable technologies that have known present value and those that have future promise. Finally this plan will propose strategies to deliver these known and future technologies into the hands of our students, faculty, and staff.

This strategic plan is intended to accomplish the following:

- Review the current state of technology at Santa Rosa Junior College.
- Identify issues and propose strategies to address future technology challenges.
- Project one-time and ongoing resources to implement and maintain this technology plan.
1.0. Instructional Computing Labs and Classrooms

There are currently 1,600 computer systems in a diverse variety of instructional environments throughout the District. Students are provided with access to digital resources required by specific curricula as well as to tools which enhance teaching and learning across all disciplines. Resource tools include a comprehensive offering of computer software titles, informational services via the Internet and library data bases, and local networked services such as file sharing, printing, and email.

1.1. Academic Computing Systems Replacement Fund

Current Environment
Measure A has enabled us to maintain instructional computer replacement at a five-year average cycle.

Future Plan
Because of current budget shortfalls we will now adjust to accommodate an average six-year replacement cycle.

Strategies/Resources
Our focus will be to maximize equipment life over the entire group of instructional computers District wide. The extension to a six-year average life cycle will be facilitated through increased redistribution of freed-up equipment from upgrades to other appropriate venues where the resident software requires less system robustness.

Upgrades will be scheduled in large groups so that new equipment can be purchased to take advantage of large quantity purchasing discounts.

- $800,000 average annual allocation is needed. This averages approximately 285 computer systems with related peripherals replaced per year.

Note: As the District implements those new facilities and sites currently under construction, being acquired, and listed in the Facilities Plan over the next several years, the resulting increase of instructional computing environments included will require an expansion in this allocation to accommodate scheduled replacement of the associated new computer equipment.
1.2. District Academic and Operational Software Site License Funds

**Current Environment**
In the past, individual departments and areas independently requested and purchased instructional software packages and associated version upgrades. Funding of these individual requests was hit-or-miss due to competition with other requests from within the cluster. In particular, needed version upgrades were not assured. Finally, the purchase price on smaller, individual orders was more costly than larger-quantity group licensing. With Measure “A” funding, we have been able to continue to maintain the centralized District Academic and Operational Software Site License Funds to address these issues.

**Future Plan**
*As long as funding remains available, we will maintain the District Academic and Operational Software Site License Funds as created.*

**Strategies/Resources**
This fund will continue to centralize purchasing and provide current version coverage for instructional and operational software used District wide. Examples of larger vendors include companies like Adobe, Microsoft, AutoDesk, and Network Associates (McAfee) among several others.

- $200,000 annually is needed.

1.3. New Computer Lab Classrooms

**Current Environment**
The need for computers to be used by students as part of curriculum delivery in the classroom has been steadily increasing among several disciplines over time.

The development of needed new computer lab classrooms to accommodate teaching objectives (as opposed to drop-in computer labs for independent assignment work) is currently being addressed through scheduled and planned construction projects as well as acquisition of new facilities and sites.

**Future Plan**
*To assist with planning the implementation of new computer labs at new sites and facilities. In the meantime, we are also endeavoring to assess the viability of repurposing existing facilities to accommodate the growing need for access for programs like ESL and Applied Graphics in particular.*
Strategies/Resources

Initial cost for new computer equipment for new computer lab facilities has been covered in building projects cost via associated F&E lists. Considering the current trend in state funding shortfalls, though, it may fall back on the District to fund related F&E for some future projects. Ongoing equipment replacement costs for new labs will be covered under the Academic Computing Systems Replacement Fund in Section 1.1. This replacement fund will need to be augmented to cover these additional computers.

1.4. Additional Computer Technologies for All Labs and Classrooms

Current Environment

The Academic Computing Systems Replacement Fund in Section 1.1 does not specifically address the ongoing instructional need to provide additional technologies to support the growth and evolution of approved curricula. Cisco Networking Program, Digital Media Lab, Applied Technology’s CAD program, the Center for New Media, and the programs and certificates which comprise the Tech Academy are noteworthy examples where curricula must accommodate changes in technology to remain relevant program offerings.

Future Plan

To set aside funding annually for acquisition of needed additional computer technologies for all labs.

Strategies/Resources

• $40,000 average annual allocation will be needed to cover additional computer technologies for all labs

1.5. Student Wireless Access

Current Environment

Student wireless service is now being implemented at both Santa Rosa and Petaluma Campuses by local Internet service provider, Sonic, with input from Computing Services and Facilities Departments. Please see Administrative and Office Technology Section 14.2 for additional information.
**Future Plan**

*See Section 14.2.*

**Strategies/Resources**

*As needed and requested by Computing Services, Academic Computing and Petaluma Technical Services groups will participate in providing related informational support and assistance to student wireless users.*

### 1.6. Instructional Computer Support for Unsupported Instructional Areas

**Current Environment**

Several instructional computing areas lack adequate technical support. An additional staff resource is needed.

Many instructional computing environments across the District receive technical support only by virtue of existing local departmental staff in other assignments. A number of departments, though, have insufficient, if any, qualified computer technical staff on board, and unfortunately, a large number of our computer lab facilities and classrooms have been consistently without adequate support. Currently this includes 30 instructional labs and 120 classroom instructor stations throughout the District, including a variety of off-campus venues.

Through a reorganization of Academic Computing services and reallocation of staff resources, we have in the past three years been able to take on limited support for some additional instructional programs in need, in particular Public Safety Training (four labs), South West Center, College Skills-Santa Rosa (two labs), Library Teaching Lab, the Hope Center, and the recently upgraded and expanded Language Lab.

Unfortunately, this effort still leaves most of the areas in this group of labs and classrooms without adequate support coverage.

**Future Plan**

*To complete development of a shared, centralized instructional computer support service provided by Academic Computing that addresses the computer technical support need for all instructional labs and classrooms.*

**Strategies/Resources**

What is required is an additional fulltime technical position to fulfill this objective (this is now a decade since we first requested this position).

$85,000 annually for an additional Instructional Systems Coordinator position is needed.
2.0. Library and Information Resources

Technology and library services are inseparably connected through the integration of information technology over the last decade. This is directly reflected in the significant growth in usage of the instructional collections and information resources that directly support student and faculty learning at the College. From a technology planning perspective, the focus needs to be on three critical areas: 1) information resources and instructional collections 2) access services (3) proper facilities and infrastructure to support learning.

2.1. Information Resources & Instructional Collections

Current Environment
This category represents the primary collections that directly support student success at the College. These collections include 127,000 book titles, 26 on-line databases containing thousands of magazines and journal titles, statistical reports, reference collections, and locally created instructional Web pages. Students and faculty at the College heavily utilize all of these resources. All of these collections are treated as a unified District resource and are available at the Santa Rosa and Petaluma sites.

Critical to the issue of technology-based collections and resources is the physical format and the related storage requirements. This single element has a primary role in the acquisition and organization of our information resources. Physical buildings, the network, and remote databases are all part of our storage solution.

Future Plan
The Library will continue to acquire a wide variety of information formats to meet student needs. Of particular note will be large collections of image files to support curriculum, video-based files, e-books, and special on-line collections that support specific departments and subject disciplines. The overall goal is to have high quality, current collections that directly support learning at SRJC. All of these collections, regardless of location and format, must be accessible from a single easy-to-use interface.

Strategies/Resources
• $50,000 annually for digital resources
2.2. Facilities and Infrastructure

Current Environment
With the completion of the two libraries on the Petaluma and Santa Rosa campuses, library facility needs will be met well into the mid-century. The next significant area of upgrades will be starting in two years as we will need to replace and upgrade our public access computers at the Doyle Library. There are 286 public access computers that will need to be upgraded and 50 laptops.

Future Plan
The most significant future planning focuses on the upgrading of the public access computers at the Doyle Library. Beyond that, a continued focus on instructional collections and information resources and their attendant technologies will remain the primary concern for library services at both campuses.

Strategies/Resources
• $286,000 for desktops, $60,000 for laptops

3.0. Distance Learning

Distance Learning is quickly evolving into an environment in which courses will be delivered utilizing multiple modalities, content formats and delivery systems. Asynchronous delivery, while continuing as a base for course content and management, is being complemented by new synchronous delivery systems, Course Management Systems (CMS) and content delivery methodologies. Planning will focus on streamlining the content development process, identification of and support for growth of required human resources, hardware and software support for accessibility compliance and continued support for CATE (Center for Advanced Technology in Education).

Advocating for the re-establishment of the Director of Distance Learning position is an essential component of this planning process. The lack of a Director with overall planning, budgeting and management control has adversely affected development of distance learning resources.

Strategies/Resources
• $115,000 - 1.0 FTE Director of Distance Learning.
3.1. CATE Server Upgrade

**Current Environment**
The CATE server upgrade has been completed at a cost of approximately $20,000.

**Future Plan**
*Although upgrades will normally be carried out in the 5-year replacement cycle, a mid-cycle upgrade may be required if significant growth in course offerings and/or content occurs. In addition, there is a growing need for a 1.0 FTE classified system administrator to handle the responsibilities of day-to-day operations of this system and to act as backup and support for the Instructional Systems Designer.*

**Strategies/Resources**
- $20,000 for servers (one-time allocation every five years).
- $70,000 for a 1.0 FTE classified system administrator (annual allocation).

3.2. Video Conferencing and High Speed Communications

**Current Environment**
The District currently supports high speed video conferencing between the Santa Rosa and Petaluma campuses with the addition of Windsor this fiscal year. This point-to-point system connects Santa Rosa’s Doyle Library media classrooms and meeting rooms to Petaluma’s Mahoney Library meeting rooms and classrooms. These systems provide support for both instructional and community teleconferencing between campuses and is maintained by Media Services.

The District also maintains a high speed broadband ring (*I-NET*) that currently interconnects the PSTC, Brickyard Culinary Program, Small Business Center, and the Petaluma and Santa Rosa campuses. This network backbone provides a high speed communication path for a variety of academic and administrative data and video traffic.

**Future Plan**
The high speed video conferencing system will continue to be supported and will require some level of ongoing support for component upgrades and replacements and for expansion to an increased number of conferencing rooms on the Petaluma campus. See Section 5.9

There is a need to begin implementation of high speed teleconferencing between District sites and regional high schools as well as possible teleconferencing capability between SRJC and the business community.
The I-NET system will be maintained in its current configuration for the time being with no plans for additional I-NET nodes. The particular configuration in use, including the communications backbone and its provider, may be modified over the next three years. These changes will not disrupt the current communications between the already established nodes. See Section 14.0

**Strategies/Resources**

- See Section 5.9 and 14.0.

### 3.3. Classroom streaming

**Current Environment**

Many institutions of higher learning are streaming courses live to users via the internet. Additionally, they record these lectures to allow for review by students for study purposes. A growing number of SRJC instructors are using this technology to deliver asynchronous, synchronous and hybrid courses. Asynchronous video streaming is provided within the CATE system. Synchronous delivery is made available via CCCConfer, a teleconferencing system provided, at no cost, by the Chancellor’s Office to all Calif. Community Colleges.

**Future Plan**

*Working with the district online committee determine the value of offering this type of instruction.*

**Strategies/Resources**

- Determine appropriate college personnel to serve on the workgroup
- Commitment of college staff to investigate this technology

### 3.4. Software for CATE and other related systems

**Current Environment**

Sisters is the CATE software system. It is currently the major software system in use by faculty.

**Future Plan**

*For the foreseeable future, the Sisters software will continue as the default environment for course content development and class management. System management and growth in system features will require ongoing fiscal support.*

*Review of possible supplemental Course Management Systems (CMS) is under way by the District Online Committee. DOC will be*
surveying faculty in fall 2009 concerning possible expansion of CMS offerings. These supplemental systems will provide flexibility in how online course content is delivered including the use of publisher e-books, pre-packaged curricula and class management. Implementation of one or more of these systems may require annual subscription fees.

**Strategies/Resources**
- $5,000 for software purchasing, licensing, and support (annual allocation).
- Fund for CMS subscription fees.

### 3.5. Expand training and support services for faculty engaged in on-line content development.

**Current Environment**
Workshops and training continue to be provided in design and development of on-line course methodologies, content and delivery. These trainings are provided by staff and faculty from various district departments and committees.

**Future Plan**
The expansion and development of comprehensive staff training will continue as new equipment and software applications are identified and integrated into online courses. Additionally, over the next two years accessibility compliance will become an increasingly important component of staff training. This growth in training will require the hiring of a 0.5 FTE classified admin assistant (possibly an AA under the Director, Distance Learning) and a 0.5 FTE PC Trainer to provide support for staff training in accessibility methodologies and compliance.

**Strategies/Resources**
- $36,000 for a 0.5 FTE classified PC Trainer (annual allocation).
- $34,000 for a 0.5 FTE classified administrative assistant (annual allocation).
- $10,000 for faculty stipends for online course development (annual allocation from various sources).

### 4.0. Technology Academy

**Current Environment**
The Santa Rosa Junior College Technology Academy is currently located on the Petaluma Campus as part of Call Hall. The area houses
the Technical Services Department as well as several Computer Information Sciences instructors. It is projected that room 648 will start to be used as a testing center. This room was specifically designed to accommodate professional testing capabilities. Examples of testing companies are: Certiport, Prometric and Pearson Vue. Credit classes, seminars, on-demand and fee-based training are scheduled through the Petaluma Office of Administration. Marketing, promotion, coordination and planning is the direct responsibility of the director of the academy.

Technical Support is supplied by the Petaluma Technical Services staff in collaboration with Computer and Academic Services. The current website is currently being revised to reflect various changes in contact information and courses/seminars.

**Future Plan**

The Technology Academy will continue to provide credit classes and high quality professional seminars. Current curriculum includes CISCO certification (the academy serves as a regional academy for CISCO). Security classes as well as Forensics, IT Essentials, Help Desk certification and various Computer Science classes will continue to be offered through the Technology Academy. The Academy also offers classes in Applied Technology, Business Administration and Business Office Technology. Recently, a Water Resource Technology Program was established within the Academy.

A new certificate, Water Utility Operations Achievement Certificate, is now being offered through the Water Resource Technology Program.

A Digital Media Certificate, which will be multidisciplinary in nature, is currently being developed. When completed the certificate and many of the classes will be part of the Technology Academy offerings.

Future plans also include a second certificate as part of the Water Resource Technology program, as well as continued exploration into “Green Technology” curriculum.

In collaboration with college constituent groups, the academy will continue to enhance access to education and training opportunities in the Southern County through incremental efficient growth.

Future plans are to implement, evaluate and enhance a training curriculum that embraces the changing role of technology and learning needs of the community at large. The Phase II construction project has provided permanent office facilities for the Technology Academy. These facilities will provide space for offices and testing facilities. The Technology Academy will be a showcase for corporate marketing. Actual classroom instruction will occur in adjacent computer labs. With the completion of Phase II the opportunity for revenue generation through fee-based training, various credit courses and certificate programs will be realized.
Strategies/Resources

The Technology Academy must continue to offer new course offerings and certificates. It must establish a firm identity that embraces computer and networking opportunities, but also implement new emerging technologies into its training opportunities. Equipment donations have been drastically reduced, therefore the Academy must continue to pursue external funding via grants (VATEA, e.g. funded promotional DVD and curriculum development for the Water Resources Technology program) and donations to fund software and hardware utilized for training. Continued support from the District will also play an important role in the continued development and identity of the Academy.

- Upgrade hardware and software as required
- Recruit qualified corporate trainers and faculty
- Promote and market corporate training opportunities
- Identify “New Technologies”, courses and curriculum that appropriate for the vision of the Technology Academy
- Utilize the new promotional DVD (VATEA funded) to promote the Technology Academy

5.0. Media Services

Media Services is responsible for District media equipment and services that are used in the process of transmitting content using sound, images, and light transmission technologies to groups of users. In addition, systems used in the creation of sound and/or image content are supported by the department. The department oversees the management of the District’s media collection; such as DVD, audio & video tapes, and compact discs. Digital signage is a new area requiring support and one which needs to be explored fully before effective implementation will be possible.

5.1. Classroom Media systems replacement fund

Current Environment

There are 6,218 items of media equipment in the current inventory. This represents an increase of over 1,400 items in two years mostly related to the opening of Frank P. Doyle Library and Petaluma Phase II. Within that inventory approximately 36% of the equipment is five years old or less, 19% is 5-10 years old, 22% is 10-20 years old, and 23% is 20 years or older. Much of the pressure to replace equipment is driven by changes in computer applications, forcing some items out of service technically before they lose actual functionality. In some areas of study,
the conversion to digitally stored media is placing pressure to convert existing systems in order to maintain instructional currency. There are other media technologies where a 7-10 year lifespan is completely acceptable. Open Learning (distance learning) is starting to use streaming technologies. It is expected that more support in the multimedia area will be required.

**Future Plan**

*This established fund is for the ongoing replacement and upgrading of generic classroom media equipment and keeping this equipment current. This does not fund specialized equipment used within an individual discipline.*

**Strategies/Resources**

Replace projection equipment on a five-year cycle and modernize ten additional rooms each year. Replace other supporting equipment as necessary.

- **2009-10**  $495,000
- **2010-11**  $545,000
- **2011-2012**  $605,000
- **2012-2013**  $680,000

**5.2. Collection Organization and Access**

**Current Environment**

The College collection of recorded media content now exceeds 9,500 titles. The collections are housed in two locations with a courier service providing the transportation of shared items. Less than half of these titles comply with Section 508 accessibility standards.

**Future Plan**

*The department has several collections still circulating with a paper-based system. The conversion to a computer-based circulation system would improve access to the collections, making them more accessible and improving the utilization of information.*

**Strategies/Resources**

Hire staff to allow cataloging to be more current or contract with captioning company

- 508 compliance requires use of a portion of Media Production Technician in section 5.4
- One time software $25,000
- Annual maintenance contract $2,000
$48,000 STNC Captioners /annually 5 years

5.3. Circulation Equipment Replacement Fund

Current Environment
The department maintains a central collection of equipment (projectors, digital cameras, camcorders, overhead projectors …) that is borrowed by District users.

Future Plan
Commit an annual amount to the replacement of circulation equipment to keep it current and in good working order.

Strategies/Resources
Replace circulation equipment on a 3-5 year cycle.
- $18,000 (annually)

5.4. Digital Media Streaming (in partnership with Computing Services)

Current Environment
Currently the college uses Real Media as its streaming standard for video streaming for Online classes as well as limited college Webcasting. This standard has been in place for 7 years.

Future Plan
There is a need to reevaluate the streaming options and set a standard for college supported streaming. This item addresses both the creation and conversion of some existing content as well as the hardware necessary for the delivery over the network infrastructure (provided by Computing Services).

Strategies/Resources
Each college site will have a content server available.
- $200,000 content servers (one time) (Also described in Item 14.1)
- $50,000 content converters and creation hardware (one time)
- $32,500 .5 FTE Media Production Technician (annually)
5.5. Collection format conversion and instructional playback systems

Current Environment
The VHS videotape equipment availability is questionable for more than three years.

Future Plan
Purchase DVD playback units in each classroom currently equipped with VHS. In addition the collection itself needs to be converted to a DVD physical format.

Strategies/Resources
- $12,500 50 DVD players @ $250 each (one time)
- $250,000 for collection replacement

5.6. Media Systems Repair & Maintenance

Current Environment
While the media services department has made inroads in implementation of new technologies within the District, The Repair and installation processes need to be kept current in order to maintain the equipment. We have begun to acquire the necessary tools to maintain these newer technologies and must continue to fund test equipment.

Future Plan
Actively replace test and repair equipment to keep pace with newer technologies. Provide enough support staff to keep equipment in good working condition.

Strategies/Resources
- $3,500 test & repair equipment (annually)
- $2,500 staff training (annually)
- $71,754 one FTE Media Systems Technician –Petaluma (annually)

5.7 Newman Video Conferencing Installation

Current Environment
In past years minor modifications were made to the auditorium that allow for lectures to be taped and transmitted via video conferencing to other sites. There is currently no ability for presenters to see remote sites.
Future Plan

This ongoing room conversion will provide equipment to outfit Newman Auditorium allowing it to become a room for video-based remote instruction and distribution of Districtwide events.

Strategies/Resources

- $65,000 (one time)

5.8 Broadband RF Media Distribution System

Current Environment

The Santa Rosa, Petaluma campuses and Windsor center each have a bi-directional Broadband distribution system (Cable TV). These systems are used to transmit network television, satellite programs and locally generated programming within the District. In Santa Rosa, some of the hardware is now past its useful life and needs to be updated.

Future Plan

Replace selected modulation equipment and add return signal equipment.

- $2,500 - Replace return frequency modulator (one time)
- $1,800 Replace return frequency demodulator (one time)
- $18,000 Replace 12 channel modulators

5.9 Group Video Conferencing Installation

Current Environment

There are twelve spaces within the District that support small and large group video conferencing capabilities. These rooms serve some of the intercampus needs between Santa Rosa and Petaluma. Use of this technology allows participation of staff at multiple district locations in an environmentally friendly manner. No video conferencing is available at our Public Safety facility.

Future Plan

Provide equipment to outfit two additional conference room spaces to allow them to become video conference capable for College meeting locations. Building planning has been accomplished that will provide future space in the Bertolini Student Services building. However there is a short term need to outfit one additional meeting room in Petaluma as well as adding the ability in Windsor to participate in video conferences.

Strategies/Resources

- $80,000 (one time)
5.10 HD Digital Acquisition Cameras

**Current Environment**

The current field cameras used to record college activities and events is analog based equipment. The production capabilities in the new Doyle Library are fully digital.

**Future Plan**

Replace the 3 field cameras with digital format units.

**Strategies/Resources**

- $66,000 (one time)

5.11 Digital Signage

**Current Environment**

As part of the planning process for many of the newer facilities in the District, infrastructure accommodations and equipment have been put in place for public display digital signage. As a temporary implementation, Media Services is currently manually loading PowerPoint presentations created by individual departments to serve as the content on the existing systems. This solution requires staff time for an area not directly determined to be a Media Services responsibility. There is no ability to implement Districtwide marketing messages or potentially “push out” emergency information.

**Future Plan**

The college should form a working group to investigate the potential implementation of this technology.

**Strategies/Resources**

- Determine appropriate college personnel to serve on workgroup
- Commitment of college staff to investigate this technology

5.12 Satellite Downlink

**Current Environment**

When move to Doyle Library was made the existing Plover satellite yard went off-line awaiting new connections to new building.
Future Plan

Using Fiber connections designed as part of Doyle and Plover projects establish satellite signals to Campus TV headend.

Strategies/Resources

- $50,000 one-time for contractor work and equipment,
- Commitment of college staff to investigate this technology.

6.0. Technology for students with disabilities

Current Environment

The Disability Resources Department (DRD) provides students with disabilities equal access to community college education through assistive technology, assistive software, specialized instruction, disability-related support services, and advocacy. In addition, DRD faculty and staff participate in the District’s ADA and 508 plans via the District Accessibility Committee and the Distance Education Accessibility Committee.

- Santa Rosa:
  Currently, the Assistive Technology Training Center (ATTC) on the Santa Rosa campus houses twenty fully accessible computer workstations. Eight of these stations are in a fully functional “Smart” classroom attached to the ATTC where assistive technology classes/workshops are taught throughout the week.

- Petaluma:
  Currently, the Assistive Technology Training Center on the Petaluma Campus houses six fully accessible computer workstations located in room 690A. Steady increases in the number of students with disabilities as well as technological advances in assistive software have resulted in increased demand for computer utilization in instructional and tutoring settings.

Future Plan

The following is a compilation of foreseeable disability-related technology needs based on current enrollment trends as well as state and federally mandated compliance regulations.

- Reworking of the assistive technology course 384 and 384.1 to break the current single course into two; better reflecting the student learning outcomes.

- Continued compliance with Section 504/ADA in regards to its “5%” accessible workstations in all computer labs on both campuses. SRJC strives to provide “10%,” when possible especially due to our increasing population of students with
disabilities as well as age-related disabilities that are increasingly affecting our Sonoma County population.

- Increase production speed of alternate media through the use of student assistants and interns.
- Creation of a private space to complete assessments in so that conversations are kept confidential.
- Develop a quiet, low light computer access station for students with Photophobia (light sensitivity).
- Stay current with technological advances.

**Strategies/Resources**

- Computer-related technologies to be covered through the Academic Computer Systems Replacement Fund and/or categorical funds.
- Software update through the District Academic and Operational Software Site

### 7.0. Staff development and training

**Current Environment**

Technology training opportunities are available to faculty and staff from three primary resources: CATE, the Faculty Technology Training Fund (FTTF), and Staff Development. CATE sponsors training for the effective integration of network and on-line resources into classes, the creation of on-line classes via technology, and training opportunities for all staff that support instruction. The FTTF sponsors “faculty only” technology training in any type of technology being used for instruction. Finally, Staff Development funds are utilized for attendance at conferences and seminars that relate to technology.

**7.1. Expand training and support services for technology related curriculum development through CATE.**

**Current Environment**

CATE and the Open Learning Program provide a combination of training and services that directly support technology integration at the College. This includes faculty stipends to take training and develop on-line courses, software application training, training in video streaming technologies and other related topics. In addition, training and support for instructional faculty and staff is provided upon request.
Future Plan

CATE will expand and develop a more comprehensive curriculum-based training program and serve instructionally related projects for both the PC and Mac platforms.

Strategies/Resources

- $30,000 for faculty stipends (annual allocation) (See 3.3 above).
- $40,000 for a full-time classified administrative assistant (annual allocation) (see 3.3 above).
- $35,000 for a full-time classified graphic artist (annual allocation) (see 3.3 above).

7.2. Expand support services for technology related training through FTTF funding.

Current Environment

CATE and the Open Learning Program provide a combination of training and services that directly support technology integration at the College. This includes faculty stipends to travel to conferences, seminars, and to take training courses and develop on-line courses, software application training, training in video streaming technologies and other related topics. In addition, training and support for instructional faculty and staff is provided upon request.

Future Plan

CATE will continue to expand and develop a more comprehensive curriculum-based training program and encourage new training options for faculty.

Strategies/Resources

- $40,000 for faculty stipends (annual allocation) (FTTF Funds).

7.3. Expand travel to conferences and seminar support services for technology-related curriculum development through Staff Development funding.

Current Environment

The Staff Development Program provides funding to support a wide variety of activities that relate to faculty and staff professional development. Within that framework, support for technology integration and usage are areas that qualify for funding. In recent years these budgets have been significantly reduced, however in 2007 new funds were provided that will remain constant until 2010.
Future Plan

- Continue to advocate for an increase in District funds to support Staff Development activities.

Strategies/Resources

- $11,000 for increase of Administrative Assistant/Resource Center from 80% to 100% position, associated with the increase of funding from the State and related work-load.

7.4. Provide individual training and small group training to classified staff, faculty, and administrators for District supported software products.

Current Environment

Computing Services provides limited training to new and existing staff that need help with E-mail systems, Microsoft products, Reflections, and other standard software products.

Future Plan

Computing Services will provide Monday through Friday training by appointment and ad hoc to all staff needing assistance/training on standard District software products.

Strategies/Resources

- $42,000 for full-time PC trainer/Help Desk (annual allocation) (See section 18 Help Desk & Support Services)

7.5. Expand support services for online flex activities and support of the Flex Data System.

Current Environment

All faculty are in need of flexible and ongoing orientation, training and professional development opportunities to enhance their effectiveness in the classroom. In concert with Staff Development, Computing Services has created the Flex Data System, an online management tool for use by faculty and professional development staff to access, monitor and input data regarding professional development activities for faculty.

Future Plan

Staff Development will expand on current offerings and develop a more comprehensive selection of online professional development opportunities for faculty.

Strategies/Resources

- $42,000 for full-time Online Training Technician/Flex Data System Technician for support and enhancement of the online workshop offerings and the Resource Center website. (Shared
Strategy/Resource from 7.6

7.6. Expand support services for online professional development activities for Classified Staff, Managers and Administrators.

Current Environment
SRJC currently offers an Orientation for new classified employees twice each Academic Year. Online resources are available, but require adequate maintenance and updates.

Future Plan
An expanded and continually updated online Orientation Handbook will be a focus area. The goal to move from hard-copy handbooks to an online-only version will keep us current with training trends and resources available in the staff development arena. Additionally, offering online training opportunities for Classified Staff, Managers and Administrators similar to what is offered for faculty through 4faculty.org is needed.

Strategies/Resources
- $42,000 for full-time Online Training Technician / Flex Data System Technician for support and enhancement of the online workshop offerings and the Resource Center website. (Shared Strategy/Resource from 7.5)
8.0. Student Services Systems

Information Technology Vision
Student Services will endeavor to be a leader in the California Community College system in connecting students to appropriate technologies. We will continue to advocate for the most efficient and effective technologies to support students in their goals of educational attainment, student development and success. We realize that our technology applications and resources will need to evolve to meet the changing demands of students and staff. Student Services personnel will also need access to technology that most efficiently delivers support and services to students. In addition to providing better recruitment and retention strategies for students, this will serve to enhance staff performance, satisfaction and professional development.

During the next three years there will be a major challenge to complete the migration of Student Services operations, services and staff to the new computer platform/records rewrite; including evaluations, degree audit, reports and new initiatives. In addition, Student Services is moving into the Bertolini Student Center and Petaluma phase II; both will require extensive net-new technology.

8.1. Student Services Equipment

Current Environment
Student Services has over 300 PCs and Macs assigned to its various departments in both Santa Rosa and Petaluma. Student Services provides support, counseling, student development activities, advising, enrollment services and technical record-keeping services, including delivery and storage for SRJC students. A system has been developed to support timely upgrade of technology hardware and software that includes a comprehensive computer and printer inventory for the entire component. These upgrades should provide a level of service expected by students and the District.

Future Plans
Student Services will continue to monitor computer and printer inventory so that replacements and upgrades happen in a 6-year cycle.
Strategies & Resources

Student Services will maintain an up-to-date inventory of computer related equipment. It is estimated that Student Services will need 200 new or replacement systems over the next three years.

8.1.1. Support the Development of Student Services Technology Applications

Current Environment

Currently, students and staff have access to numerous SS applications, documents and information through the College-Wide Information System. This is a combination of both personal and public on-line information. Student Services is committed to encouraging student responsibility and success through technology. Student Services will continue to assess what information is appropriate for students to access and strive for 100% accessibility, and where appropriate, parity in both our on-line and in-person information.

Future Plans

Continue to support, develop and enhance on-line systems that give students access to district administration, faculty, classes, and learning resource centers, in compliance with the requirements for accessibility identified by the Office for Civil Rights and other federal and state regulations. This baseline suite of student support systems and services should be available to all students with a fluid integration for all staff use and support. It will include the exploration, development and evaluation of the best practices for Student Services (e.g., on-line support (CCC Confer, etc.), district-wide wireless access, portal-based communication (MyCubby, etc.), web-hosting/data warehousing (Datamining, SIS, etc.), on-line counseling and advising, electronic transcript exchange, degree-audit). These services should meet or exceed those services available through a student visit to the campus. Many of these projects will be evaluated to explore mechanisms for our District to implement if they add value to the student experience.

In order to maximize the effectiveness of District outreach services, a student tracking database and software module needs to be implemented. The purpose of this module feature is to automate and centralize “prospective students” in a common database so that individual departments can send information or follow-up communications based on student profile elements in the database. This will result in overall cost efficiency and optimal yield rates enhancing college enrollment.

In addition, Student Services will continue to provide all appropriate information via the web, requiring the continued increase in hours (.75 FTE) to the Web Design Specialist.
Strategies and Resources

To adequately address many of the programs and technology initiatives required by Student Services, it will require a .5 FTE Computer Tech/Programmer. This will also allow Student Services to assist other departments and offices in developing technology applications that are mutually beneficial to students and to the institution.

The continued increase in hours to the Web Design Specialist is ~$12,000 per year.

It is estimated that software development and hardware acquisition would cost approximately $60,000 - $80,000.

8.1.2.  Expand Use of District-Wide Computer Access Stations

Current Environment

SRJC’s general computer access stations continue to be a primary method of delivering information to on-campus students. At this time, students can receive up-to-date information such as important registration dates. Students can also access their own personal district records, file a college application for enrollment, register for classes, check email, and surf the web for important educational information. There are presently approximately 38 (plus the computer lab at the SWSRC) access stations at strategic locations on the Petaluma and Santa Rosa campuses (and Southwest Santa Rosa Center).

Future Plan

Student Services will continue evaluating and proposing additional locations for placing access stations.

The move into Petaluma Phase II (Call Building) will necessitate the installation of 2 net-new access stations in the Student Affairs/Student Health Lobby.

In addition, it is estimated that the new Bertolini Student Center will house 24 student access stations for the following programs/services: EOPS, CalWORKs, Counseling, Career/Transfer, Work Experience and Student Affairs. Currently, these programs have 7 total stations. The move represents the request for and installation of 17 net-new access stations. The Matriculation Student Services Office at the Southwest Santa Rosa will need 2 computers with internet access for the kiosks in the lobby to assist student with Registration and Enrollment services.

Strategies and Resources

Computing Services will be consulted to ensure reliable access station connectivity.
8.1.3. Support Software Upgrade & Maintenance Costs

Current Environment
Presently, Student Services has approximately 17 software packages that require annual maintenance:

- Two (2) in the Career Center: Career Crusing, EUREKA ($2,600);
- Seven (7) in Assessment: DataBlocks, Student Right To Know ($1,233), Combined English Language Skills Assessment (CELSA) ($2,200), California Test English Placement (CTEP) ($5,000), Mathematics Diagnostic Testing Project (MDTP) ($2,000), Ability To Benefit (ATB) ($1,200), (Total = $11,700);
- Two (2) in Counseling: SARS Grid ($2,700), SARS ALRT ($1,350) (TOTAL = $4,050)
- Four (4) in A&R: Enrollment Management Technology (EMT) Connect ($5,400), College Source, ImageSource/ATI Filer, (Total = $30,000 per year);
- One (1) in Financial Aid: Regent FAM, ($23,000) and
- One (1) in Student Health Services: MediCat, ($8,700).

Future Plan
Continue to integrate the current system of institutionally developed and maintained software and vendor supported software applications. This hybrid approach should be developed to offer a seamless delivery system that addresses the needs of our diverse student population and allows staff user-friendliness, speed and multi-dimensional access.

Strategies and Resources:
Annual maintenance costs: ~$80,000.

8.2. Admissions and Records

Current Environment
There are currently 36 personal computers located in Admissions and Records (Plover). The PCs are networked to provide access to electronic documents: transcripts, catalog descriptions, mainframe information, imaging, etc. There are also 16 laser printers, 8 deskjet printers and one color laser printer, which are vital in printing official college transcripts, student certificates, diplomas and international student newsletters. In addition, there are 14 kiosks located
in the lobby area of A&R, each equipped with one desktop PC and one laser printer. There are also two document imaging scanners and one roster bubble sheet scanner. Admissions & Records is responsible for the imaging of all student records for District wide accessibility. Presently the department is collaborating with Computing Services to further develop the computer-generated degree audit report. Also, Computing Services is close to launching the conversion of the entire student records system, therefore a continued collaboration effort with Admissions & Records is critical.

**Future Plans**

*Planned upgrades and/or replacement of 2 imaging scanners and purchase one additional new scanner for a total of 3. These should be evaluated for replacement every 3 years.*

*Planned upgrade to electronic storage system (Imaging) (To be determined after SIS implementation)*

*Electronic submission of college forms contingent upon the successful implementation of the new student records system (e.g. petitions, requests for transcripts, etc.).*

*Planned upgrades/replacement of laser and color printers (HP4500)*

To enhance A&R’s outreach and registration efforts, one laptop and three wireless printers for off campus registration would be required.

**Strategies and Resources**

*The cost of new and replacement hardware is ~ $30,000.*

Currently there are no discretionary funds in Admissions & Records or Matriculation to pay annual fees, software contracts and maintenance agreements for CCCApply, CCCTran, (XAP Corp. for CCCTran & Apply). These costs have been shared by matriculation funds, Admissions & Records and District Technology Funds.

*The cost of two imaging scanner replacements and one additional new scanner is ~$24,000.*

### 8.3. Assessment Services

**Current Environment**

The Assessment/GED Services Centers are located in Plover Hall at the Santa Rosa Campus, in the Jacobs Hall Building at the Petaluma Campus, and in the Matriculation Student Services at the Southwest Santa Rosa Center. The services offered through the Assessment Program are Placement Testing for English, math, chemistry and ESL (English as a Second Language), for both credit and non credit programs, ATB (Ability to Benefit,) a State mandated financial aid test, the GED (General Education Development) exam, and finally Distance Learning proctor services. Most all of the testing is by paper and pencil. Occasionally, a Distance Learning Exam will be completed online. In Plover
Hall, the Assessment Center has 7 work stations for the Dean and support staff. Each work station has a computer and there are a total of 6 printers for the entire center. There is also an additional computer and scanner which are used exclusively for processing placement test scantrons.

Within the Center at the Santa Rosa Campus there are 2 testing labs equipped with 12 and 49 recently installed computers and monitors with hydraulic arms that fit neatly back into the desks. And the rooms are equipped with media technology.

At the Petaluma Campus there is an additional Assessment Center located in Jacobs Hall Building. The Center is equipped with 1 computer (+1 computer for CELSA), a printer and a scanner. This computer equipment is also utilized for the scanning of placement test scantrons. Placement Testing and the proctoring of Distance Learning Exams are administered in the various computer labs on campus. A designated lab has been assigned to be used for Placement Testing at the Petaluma Campus, plans to equip the lab with computers is still in progress. The projected date for completion of this project is Spring 2010.

In the Matriculation Student Services Office at the Southwest Santa Rosa Center Registration, Assessment, Enrollment, Orientation, Counseling and Preregistration services are provided. These services are designed to place students into NC ESL courses. The office is equipped with 4 work stations with a computer and printer. There are a total of 4 computers, 4 printers and 1 scanner. Three of the work stations are set to help students with Registration and Enrollment services, and one station is used by an academic counselor to assist students with career and educational goals. The office has designated two kiosks in the lobby, plans to supply the kiosks with computers is in progress. A scanner has been installed to one of the stations for processing placement test scantrons.

The Assessment Center’s computers and printers are within one to five years old.

**Future Plans**

Assessment/GED Services will continue in its role to offer student centered services to students, the community and the public. Recently, the Math and ESL Departments have made the decision to acquire the COMPASS as the college’s placement testing instrument. The COMPASS is computerized, however the paper and pencil test will be available for students when necessary or requested. There is a long and complex process to having a testing instrument implemented at a college. The final step before implementation is approval and validation from the State’s Chancellors Office. The Math Department is planning on starting the pilot test of
COMPASS in spring 2009. The anticipated date for implementation of the testing instrument is spring 2010.

The ESL Department has completed their pilot test of COMPASS, and is waiting for the validation and approval from the State Chancellors Office. The expected date for implementing the ESL COMPASS is set for fall 2009.

In early spring 2009 the Chancellor’s office approved the NC ESL Writing Sample. The ESL Department is planning on running a pilot test at the Santa Rosa campus in December 2009. The projected date for full implementation is set for March 2010.

The English Department has no current plans for computerized testing and is satisfied with the Writing Sample and paper and pencil test. Due to the transition to computerized testing, the technology needs will become greater and the need for the maintenance and repair of the computers and scanners will be substantially increased for the Assessment Services Centers. One printer at the Santa Rosa Campus will be needed in the larger lab classroom for printing out student’s test scores and results. Also, the new Student Information Services system will go live this November 12, 2008. Therefore, Assessment Services will require new scanners with computers for the processing of placement test scantrons on the new database system. Furthermore, the printer at Petaluma Campus needs to be replaced.

Assessment/GED Services plans to upgrade the Petaluma scanning station as well as equip the designated testing lab for placement with 24+ computer stations in order to accommodate the demand for computerized testing.

Assessment Services will also require programming changes to the assessment database in order to ensure test security of digital information. In addition, federal law and Chancellor Office directives require that technology is universally accessible to all persons, including those with disabilities.

**Strategies and Resources**

The 24+ PCs in Petaluma Phase II would be $60,000. Annual software & maintenance costs are $11,700. The cost for 2 Laser Jet Printers is approximately $12,000.

8.4. Counseling

**Current Environment**

The Counseling department has 37 computers and 32 printers for its counselors and support staff (includes Petaluma Campus). The technology demands have increased since the writing of the last Technology Master Plan. Areas of programmatic growth have occurred in on-line counseling and orientation, the storage and retrieval of resource information for both students
and counselors, the integration of the SARS appointment system with the Matriculation data reporting system, and the need to provide access for students to an increasing array of internet based services. Additionally there has been greater coordination between the different Student Services departments.

The Counseling and Support Services area has recently updated its inventory of desktop and laptop computers in an effort to support the timely replacement and/or upgrading of existing equipment. In an effort to provide consistent and accurate information to students, and to encourage group counseling initiatives the Counseling Department has been active in the development of media-based presentations for use both on and off campus. These initiatives have required the purchase of additional equipment.

**Future Plans**

- Provide regular technology training for classified staff.
- Resolve communication issues between the remodeled Plover Hall and the Bertolini Student Center using some type of virtual communication software, as resources and practicality allow.
- Student Services will continue to monitor computer and printer inventory so that replacements and upgrades happen in a 5-year cycle.
- Pilot new programs within SARS such as self-scheduling and self-check-in for counseling students.
- At present, the Counseling Department is limited in its ability to meet the demands of the off campus Non Credit ESL program because of limited computer capabilities. The Non Credit ESL population is growing but the physical constraints associated with off campus locations prohibit the ability of the counselor to fully utilize District resources. However, the addition of the Southwest Santa Rosa Center may mitigate many of these concerns and allow Counselors and other staff to address the Matriculation needs of this particular population.

**Strategies and Resources**

- It is estimated that the cost of new and replacement technology hardware will cost ~$50,000.
- All new technology needed for the new Bertolini Student Center is included below in section 8.12.

**8.5. Student Financial Services**

**Current Environment**
Student Financial Services has a total of 34 PCs and 8 kiosks. The Regent FAM financial aid processing software runs on two servers in Computing Services, one for the database and one for the application. SRJC’s Financial Aid system also communicates electronically with the Department of Education. The Department of Education published minimum standards for college computer and network systems in 2001 and will be updating these in 2009. With the retirement of the HP3000, the financial aid processing and packaging system (SAFERS) has been replaced with Regent FAM to provide basic aid delivery on SRJC’s new windows-based platform. Local service standards support web-based student inquiry and the California Student Aid Commission is developing WebGrants, a soon to be required Cal Grant electronic data exchange. Working with Regent Enterprises to further develop functionality for FAM will continue.

The Foundation Scholarship payment program (Moneybags) is linked to Accounting’s accounts payable system and is planned to be updated with the new SIS implementation. The Foundation Scholarship database (SAM) is also being modified for the new platform. The web-based Scholarship announcement search module is developed and was launched spring 2007.

The Veteran’s Affairs office makes extensive use of SRJC student lookup, SARS (for counseling appointments) and Regent FAM. In addition, one PC in this office must maintain compatibility with the dept of Veteran’s Affairs (VA Once) to certify GI Bill recipient enrollments.

**Future Plans**

- Maintain minimum PC standards as directed by the Federal Department of Education and Veterans Administration; replace/upgrade as needed.
- Develop/launch Regent FAM modules for student web inquiry and State Grant interface (for WebGrants);
- Upon SRJC migrating to a windows-based platform, training for Computing Services staff for data extraction and reporting from FAM will be required;
- When SRJC moves to CCCApply for on-line applications, the CCCBOG module should be purchased and interfaced with FAM and the new SIS;
- A scanner for the new SAM scholarship database will be needed when completed and tested;
- For Veterans Affairs, 1 new PC with printer is needed for a student kiosk;
- For Petaluma Phase II, 3 additional PCs are required: 1 for staff, 2 for student kiosks; all with printers.
♦ On-line Doyle Scholarship application submission is desirable, given the volume of the program and would require programming;
♦ On-line SRJC Foundation Scholarship application submission is desirable and would require programming;
♦ Automating Satisfactory Academic Progress checking each term in FAM, based on an academic input, is planned new functionality.

Strategies and Resources
♦ Approximate costs for upgrades: covered in part by categorical funds (i.e. Board Financial Aid Programs (BFAP)/SFAA) replacing 8 per year costs $42,000.
♦ Cost of Regent FAM modules + some local programming, covered in part by BFAP/SFAA funding if Chancellor’s Office approval is secured.
♦ Cost of CCCBOG program to be covered by BFAP funds.
♦ Cost of scanner for Scholarship-at ~$3000.
♦ Cost of on-line scholarship application submission projects would be programmer costs and time.

8.6. EOPS/CARE

Current Environment
All workstations in the Extended Opportunity Programs & Services (EOPS) Office at 1808 Albany (9 PCs, including 1 kiosk), in Plover (2 PCs for EOPS outreach) at the Santa Rosa campus and in the EOPS counseling office at the Petaluma campus (1PC plus 2 computers shared with Puente and the Welcome Center) are dependent upon computer technology to provide effective and efficient services to EOPS/CARE students.

Except for the students contacted by the EOPS Outreach Specialist, all EOPS/CARE student tracking is done through the 11 EOPS/CARE Reflections screens created and maintained by Computing Services which was converted to the new Student Information System on November 12, 2008.

In addition, the EOPS and CARE programs use “lookup only” links to assessment, registration, counseling, matriculation, articulation, and financial aid databases.

EOPS and CARE funding is dependent upon accurate and timely reporting of term end program data to the Chancellor’s Office through MIS.

Future Plans
With the retirement of the HP 3000 on November 12, 2008, all the EOPS and CARE screens in the student records system were rewritten for the new Student Information System.

The new Student Information System is being modified to include changes in the reporting requirements of the state in relation to EOPS and CARE.

It is anticipated that in the near future the Chancellor’s Office will automate the annual EOPS/CARE Program Plan. This change may require additional hardware and software for Program Plan submission. At this time, there is no additional information on the automation of the EOPS/CARE Program Plan except to add that the EOPS/CARE Director has requested to be one of the beta testers of the new programming.

EOPS and CARE computers need to be updated to current technology according to the District's 5-year cycle. The latest request for computer upgrades was submitted through the Program Review and Planning Process (PRPP) for 2008.

In addition to the EOPS automation, EOPS counselors need access to all the same data available to other Student Services counseling staff.

As EOPS programs throughout the state move to a “paperless” system of tracking services to students, this may become a viable option for SRJC.

EOPS will continue outreach services to the English Language Learners (ELL) community throughout the District service area. This requires the appropriate technologies for digital access and multimedia presentations.

**Strategies and Resources**

**Santa Rosa**
The latest request for computer upgrades was submitted through the Program Review and Planning Process (PRPP) for 2008. [Note: The EOPS workstations at the Santa Rosa campus that have not yet received new computer upgrades need to have DVD-RW drives and players included with the new technology.] This request included four upgrades of existing computer workstations and the existing kiosk plus a new fax machine for the reception area. (est. cost for computers with DVDs ~$6,400; cost for kiosk is ~$1,600; and cost for fax is ~$300)

In addition, there is a need for a DVD player for the large screen VCR in the EOPS conference room. The move to the Bertolini Center may accommodate this request.

**Petaluma**
The current computer workstation used by the EOPS Counselor at the Petaluma campus is in need of an immediate upgrade. (est. cost ~$1,600)

There is still a need for a portable projection screen to accompany the new LCD projector and sound system assigned to the EOPS counselor at the Petaluma campus. (est. cost is ~$1,000)

EOPS has submitted a joint request with the Puente program at the Petaluma campus for a student reception and study room placed between the offices of the Puente counselor and the EOPS counselor in Phase "R" of the Petaluma remodel. This room will need a computer workstation including a printer. (est. cost is ~$1,600)

Bertolini
As EOPS expands into the Bertolini Student Center, it will require current technology equivalent to other Student Services departments. There are currently 11 PCs in EOPS at Santa Rosa with a plan to go to 14 PCs with the move to the new Bertolini Student Services Center. See the Bertolini Student Center technology plan for more information. (est. cost is ~$4,800)

When the new student records system makes registration and articulation information more readily available for student use, there will be a need for another computer access station in the EOPS office. When EOPS moves into the Bertolini Student Center there will be room for this access station in the reception area. (est. cost for access station is ~$1,600)

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**8.7. Student Health Services**

**Current Environment**
In addition to standard network connections to the college’s Financial 2000, Reflections, and email systems, the Student Health Services department also utilizes a secured intranet and software system (Medicat) specific for healthcare information processing, including an electronic medical records system. A dedicated server is housed in Computing Services, and about 32 separate users per year share the department’s 19 desktop computers and 4 laptops, located in the health centers at both campuses. All employees, contractors, student workers and psychology interns utilize the system for appointment management, to enter data on diagnoses and services rendered, and to access internal reporting, analysis and evaluation functions. The software system interfaces with the college’s student database, and via a regular schedule of uploads, demographic student information populates selected fields.

**Future Plans**
- Expand the existing MediCat software, to include modules that enhance student access to health related services, and assure continuous quality
improvement for clinical and mental health services provided (case management). This includes student self check-in capacities utilizing computer stations in waiting areas, on-line appointment making, immunization tracking functions, and secured email communications with students regarding their healthcare needs.

- Move mental health records over to an electronic, paperless records system.
- Secure wireless access for SHS computers at both health centers. Needed to facilitate mobile computer devices for staff in the clinical areas, and assist in establishing student check-in computers in the Santa Rosa office’s intake area.
- Program interface between MediCat and the college’s student financial accounts system, to facilitate accounting for student charges related to health services rendered.
- Complete Petaluma Phase II technology plan implementation (Spring ’09).
- Assure adequate interfaces with the new student information system (Spring ’09)

Strategies and Resources

- Assure adequate hardware and software resources to support specialized healthcare operations and maintain ongoing access to computing resources for all department workers.
- Continue software maintenance agreements and plan for increases in costs due to technology expansion plans. (base 08-09 $11,300/yr)
- Work with MediCat software consultants, Computing Services, and ITG to implement software upgrades and new modules. Assign resources for adequate database development and training of staff.

8.8. Student Affairs & New Student Programs

Current Environment
Student Affairs & New Student Programs (SANSP) includes many varied programs and services to students. The Student Affairs component includes all of student life for both campuses, including leadership development and student activities. The Student Affairs Office delivers support, guidance, advice and information to the students of SRJC. These services include the LeaderCenter training program, the Associated Students, the Off-campus Housing program, the CyBear Center, the Tours program, the student ID service, and campus event management. The New Student Programs component includes Reentry Services, Schools Relations, Orientation Programs & the First Year Experience program.

Currently, there are 19 PCs and 3 Macs that deliver a combination of staff and student support in the Santa Rosa Campus, Student Affairs area; this includes
the CyBear Center/ID operation. On the Petaluma Campus, there are 3 PCs, including the ID laptop. The New Student Programs area on the Santa Rosa Campus has 13 PCs; this includes 2 laptop computers for outreach.

**Future Plan**

SANSP will continue to develop ways to deliver information through technology with the support of computing services. It will be especially important to plan for the new computers/printers needed for the expansion into the Bertolini Student Center in Santa Rosa and the Richard Call Building in Petaluma. Our goal is to make all of our services currently available in-person, also available on-line.

It will be imperative that the Student Affairs Office continue to improve and manage its web site to communicate effectively with today’s college student. New Student Programs will need to develop a strong web presence by Spring 2009. Specifically, this includes Adult Reentry, the Welcome Center and the First Year Experience program.

Continued maintenance of the Off-campus Housing database and web site by Computing Services staff will be a priority.

As the student copy resource center, including computer access, the CyBear Center will continue to maintain and upgrade technology resources with the support of District technology funds. The student/staff photo ID system will need to be maintained and upgraded with support from Computing Services and District funds.

The Student Affairs Office will continue to research and advocate for the use of Smart Technology in the student/staff ID cards. This technology will allow students to use their ID cards as a debit card as well as photo ID and library/computer lab usage. The cost of this endeavor is still being determined.

Students currently are able to receive both a hard copy and electronic transcript of all courses taken at SRJC. In order to provide a parallel record of all student extra- and co-curricular activities, events and trainings, the Student Affairs Office would like to work with computing services to develop an online Student Involvement Transcript using a secure SQL server database.

The Student Affairs Office would like to be able to assist the Theatre Department and the Athletic Department with ticket sales. This would also assist students as it would make the process easier because of our hours of operation. This may require our office to have Ticketing software similar to Theatre Arts.
Because of declining revenues in the Associated Students Programs (ASP) membership program, the A.S. is recommending that the current method of collecting this optional fee ($13), Opt-In, be converted to an Opt-Out method. This will require the support and programming expertise of the Computing Services Department. The goal is to launch this new protocol during Fall 2009 registration.

In the next two years, Schools Relations will need to replace 2 wireless laptops and 2 LCD projectors that are used for Schools Outreach.

The Student Affairs piece of the Bertolini expansion will include 10 net-new PCs and 5 net-new inkjet printers. A shared laser printer will also be needed.

**Strategies and Resource**
- The estimated cost of software and hardware needed over the next three years is ~$35,000.

8.9. Disability Resources

See Section 6

8.10. CalWORKs

**Current Environment**
The CalWORKs Program is currently located in an old temporary building (Bech) on the west edge of the Santa Rosa Campus. There are 13 computers and 14 printers utilized by the staff (9 printers are “all in one” printer/copier, fax machines, 2 are desk jet, 2 are laser and 1 is a color laser; “the all in one” printers are not installed as fax machines at this time). In addition, there is one student access station; this station shares one printer with the reception desk (the access station was purchased by Financial Aid). In addition, the department has one laptop and a fax machine; a copier is also provided by the District.

Additional tech usage includes the SARS appointment scheduling software, MIS, Reflections and an in-house Access database used for case management. CalWORKs began to “flag” eligible students in the new Student Information System with its launch beginning in November 2008. However, the “CalWORKs pages” in the SIS are not sufficiently comprehensive to track all of the MIS and case management needs of the program, staff will continue to utilize the Access data base and submit “flat files” to Computing Services for conversion and submission to the Chancellor’s Office. It is hoped that CalWORKs will be fully integrated into the District’s new windows-based platform in the future, if details can be worked out.
**Future Plans**

The CalWORKs Program will move into the new Bertolini Student Center in Fall 2009. This move will add a second student access station and an installed flat screen panel planned for the reception area. The CalWORKs staff will have access to the Career Center’s computer lab for job search workshops and other group activities; this alleviated the need for a 2nd computer lab in CalWORKs. If funding allows, the CalWORKs staff may have a small presence on the Petaluma campus if CalWORKs student numbers increase with the growth of the campus.

**Strategies and Resources**

The CalWORKs staff computers and printers will continue to need replacement as a part of the District’s replacement cycle; the new equipment noted above will need to be purchased. At this time CalWORKs has no categorical funds available for equipment and purchasing guidelines from the Chancellor’s Office are fairly restrictive. This could possibly change in the future. Estimated cost of new equipment is ~$6,000.

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### 8.11 Career Development Services/Transfer Center

**Current Environment**

The Career & Student Employment Center is located in Bussman Hall on the Santa Rosa Campus. The Career Center is on one side of a center entrance hall and the Student Employment office is located on the other side. In the Career Center there is a computer lab with 13 computers and two laser printers. There are two workstations accessible for students with disabilities that are adjustable for wheelchairs. There is also a video/DVD player. This lab is shared with the Transfer Center and utilized by students for both Career and Transfer purposes. In addition there are six computers and printers utilized by staff. There are also two counseling offices with computers and printers used by part-time counseling staff. In the main room of the Career Center there is a permanent media enhanced technology set up with an overhead projector and instructional desk with a computer set up. In the Student Employment office there is one dedicated computer for students to look up jobs as well as paper binders with the same information. This computer is also utilized by Work Experience to enroll students in that program. Student Employment is currently co-located with Work Experience. The Career Center is co-located with the Transfer Center. Currently there are 22 computers in the Career Center plus the counseling computers mentioned above. This includes 13 in the classroom; 6 for staff; 1 instructional computer; 1 Career/Transfer Center sign-in computer; and one student employment computer for looking up jobs.

In the Career Center there is a laminator (IBICO 2700) and a Chart Pro plus 2 printer to enlarge flyers and posters. There are two fax machines, one located in the Student Employment office and one in the Career Center and two copiers, one for student use and one for staff use.
In the Career Center there is a sign-in computer to record the usage of the Career Center. This sign-in computer software program is bi-lingual and was developed in house by a computer programmer. This program is linked to the district’s student record system so that when students sign in it extracts basic demographic information for recording relevant data of the students. Students entering on the Student Employment side do not sign in.

Current technology used for Career Development includes three computer web based career guidance programs: EUREKA ($1,900.00), (Discover no longer in use) and Career Cruising ($850.00). These programs enable students to research occupational and academic information and do some career assessment and view future career trends data. Technology used for the on-line jobs database was developed in house and allows the Student Employment staff to upload jobs to the main SRJC web page without the assistance of additional technical staff. Student Employment also uses another in-house developed program to maintain a database of all student employees, where they are working and when they terminate.

SARS appointment scheduling software is also used to make appointments for counselors and the Career Developer who works in the Career Center.

The Transfer Center includes the Coordinator and 1 PC and 1 inkjet printer. It is anticipated an upgrade will be needed before moving into the Bertolini Student Center.

**Future Plans**

Career Development Services/Transfer Center will move into the new Bertolini Student Center in 2009. Plans include a larger computer lab, with approximately 18 computers to accommodate large classes. In addition there should be a sufficient number of printers. The classroom is designed to include media enhanced technology with a built-in projector and instructional desk. This lab will be utilized by the Transfer Center, Work Experience, CalWORKs, EOPS/CARE students as well as community members doing career and academic research. Career Development Services plans to continue to identify and utilize technology with the support of computing services to provide students from multiple campuses access to career, occupational, job search and academic information. Some resources will be free (current job listings web page) and some will require a pass code (EUREKA and Career Cruising) but all will be available through internet based programs as well as access to these resources in the lab. The lab will be available and useful for teaching students how to utilize these programs and for presenting workshops for job search etc., as well as other group activities. Currently, a resource Center on the Petaluma campus that will include Career Development Services is being outfitted for service.

To meet the needs of students with disabilities there should be at least 10% accessible workstations in the computer lab as well as ergonomic computer peripheral devices e.g. trackballs, ergonomically designed keyboards, and quality
USB headset microphones to be used in the lab. As new equipment is purchased it will be important to consider “universal access” as a key factor.

Currently there is only one computer in the Student Employment area for students to look up jobs and many paper binders. Future plans intend to minimize the paper binders and have three computers near the Student Employment Reception area for students seeking employment to be able to utilize technology to look up employment.

Other technology is now becoming available for a fee that students will be able to access on line, such as books, periodicals etc. Career Development Services will build into its budget funding for new technology as the trend to move from paper to a paperless resource center continues to evolve.

Student Employment will continue to utilize the home grown software to the on-line job listings and student employee database. In the future it will be important to upgrade the system if needed and modify to meet changing demands such as providing an on-line employer application for employers to list jobs on line and then to send to Student Employment. Cost for maintaining Student Employment software will be minimal as there is no licensing or annual maintenance fees. It will be important to continue to provide some specialized Career Development software for students such as EUREKA or Career Cruising and other on-line resources available.

**Strategies and Resources**
- Estimated cost for new and replacement technology over the next 3 years is ~$70,000.
- Estimated annual software costs are ~ $4,000.

**8.12. Bertolini Student Center**

**Current Environment**
The new Bertolini Student Center, scheduled to be completed in October, 2009, will house over 78,000 sq ft. of Student Services space, including the Vice Presidents Office, Student Affairs Office & events venue, the Center for Student Leadership, dining services, CalWORKS, EOPS, Counseling, Work Experience, Puente/MESA, Career Development and the Transfer Center. The plan is for the building to be a full-service technology center for students and staff. With over 50 offices and 10 meeting/classrooms, we will expect current technology in digital signage, media-enhanced meeting spaces, sound reinforcement systems, video conferencing equipment, computers and printers.

**Future Plan**
The following is a list of requested tech resources for the Bertolini Student Center:
The first floor will have one room designated for video/audio conferencing (Senate Meeting Room); two rooms with permanent media enhanced technology (Student Activities Center and Center for Student Leadership); and one room with a portable LCD projector (Dining Room). Total cost for this floor is ~$342,511.

The second floor will have one room designated for video/audio conferencing (Classroom #204); one room with permanent media enhanced technology (Classroom #210); and two rooms with portable LCD projectors (Meeting Rooms #203 & #209). The total cost for this floor is ~$271,793.

The third floor will have one room with permanent media enhanced technology (Orientation classroom #380); and one room with portable LCD projectors (Meeting Room #302). The total cost for this floor is ~$33,333.

There will also be approximately 13 digital display units (indoor and outdoor) throughout the building totaling ~$142,026.

Students Services staff are currently developing a comprehensive list of technology that will be moved from existing buildings into Bertolini and new technology that will be needed. The database should be completed by April 2009.

Strategies & Resources

Approximately $800,000 of one time costs for equipment mentioned above.

9.0. Business Services & Human Resources

9.1. Business Services & Human Resources Support Software

Current Environment
Santa Rosa Junior College is currently dependent on the Sonoma County Office of Education (SCOE) for the production of its payment warrants. This dependency recently underwent a comprehensive review and assessment because SCOE has decided to move to new computer hardware (Intel Servers) and enterprise software (Escape). The intent of the review and assessment was to determine if Escape Software is a good fit for our Business and Human Resources needs. Specifically we wanted to determine if Escape Software would support the following subsystems: budget development and management, general ledger processing, accounts payable processing, payroll processing, STRS and
PERS retirement systems processing, purchasing, fixed assets tracking, stores inventory management, and human resources management.

**Future Plan**

*SRJC has decided to migrate to Escape Software for its Business and Human Resource needs. An implementation plan is being developed and the go-live date is projected to be July 1, 2010.*

**Strategies/Resources**

The district will be purchasing Escape Software with the following estimated costs:

- *Estimated cost year 1 $850,000.*
- *Annual maintenance $140,000.*

### 9.2. Document Imaging System

**Current Environment**

Santa Rosa Junior College is currently using a document-imaging system by ATI that captures hardcopy documents and converts them to electronic images that can be retrieved and viewed primarily by the counseling staff. Different departments are currently using different companies and technology, creating another problem by eliminating the capability of reviewing documents with a single technology or program, with no Districtwide standard for security, data retrieval keys, or document indexing. The District is required to keep a large percentage of documents forever, or until otherwise stored electronically, that the warehouses are filled with paper that will never be able to be disposed of. This includes accounting, financial aid, payroll, human resources, purchasing, and Student Services documents, among many other areas within the District. As time goes by, this paperwork is fading and getting harder to read and maintain the records required.

**Future Plan**

*Implement a College-wide document imaging system providing image and data archiving and data management of statements, reports, invoices, etc. This system would provide a Web interface allowing users on the intranet to access historical and hardcopy documents in electronic form.*

**Strategies/Resources**

- *Implement College-wide image capture and retrieval system. Estimated cost: $400,000.*
- *Add one Full-Time Equivalent (1 FTE) staff for image capture and data entry. Estimated annual cost $56,000.*
- *One time training cost $5,000.*
9.3. Bar Code Scanner System

Current Environment
Santa Rosa Junior College is currently not using bar code technology within the Fixed Assets and warehouse receiving and delivery functions. Fixed asset tags and shipments received in the warehouse already have bar codes on them, but are not used. Current systems involve manual entry of readily available bar code data. This application may also have benefits for other college departments using bar coded data.

Future Plan
Implement a College-wide bar code scanning system for updates and audits of physical inventories and the warehouse receiving/delivery function.

Strategies/Resources
• Implement College-wide bar code scanning system(s). Estimated cost: $50,000.
• No additional staff required.
  Estimated annual maintenance cost: up to $8,000.
  One time training cost is included in the estimated cost.

9.4. Online Bidding System

Current Environment
Santa Rosa Junior College currently has no means for vendors to self register. We have no database we can use to send out bids, collect electronic bids, and no automated means to report bid results.

Future Plan
Implement an online purchasing system where vendors can self register and maintain their general organizational information, list the commodities they offer, specify their shipping and payment terms, certify their contractors license, etc. and respond to electronic bids online.

Strategies/Resources
• Implement online purchasing system(s). Estimated cost: $250,000.
• No additional staff required.
  Estimated annual maintenance cost: up to $5,000.
10.0. California Community College Software Consortium Project

Current Environment
The California Community College Software Consortium (CCCSC) is an association of three community colleges (Monterey Peninsula, Pasadena, and Santa Rosa). This association contributes resources and shares in the development of our student information system. The majority of the new Student Information System (SIS) enhancements have come and continue to be developed at the Santa Rosa campus. Two positions (Programmer Analyst, Senior and Technical Writer) are located at the Santa Rosa Campus and are funded by the consortium dues.

Santa Rosa Junior College recently (November 13, 2008) launched a new Student Information System (SIS). This system was developed to run in a Windows environment using Microsoft SQL server for the database. Active modules include scheduling, curriculum, counseling, student registration, student portal, faculty portal, student accounts EOPS, DSPS, and work experience.

Future Plan
The launch of the new student information system will continue to require a major commitment from the Computing Services programming staff. Many of the modules are under a review and enhancement cycle. In addition, the accumulation of 27 years of custom reports from the legacy system are being reviewed and if necessary will be rewritten on the new SIS system.

Strategies/Resources
• During the next 18 months incrementally improve and enhance the SIS system.
• Develop Web-based and hardcopy documentation for the new SIS.
• Develop a project list for future enhancements.
• Develop a prioritized list of legacy reports that will be rewritten on the new SIS.
11.0. Institutional Research/MIS Reporting

11.1. Institutional Research

**Current Environment**
The Office of Institutional Research is charged with conducting and analyzing surveys, responding to state and federal requests and requirements for data and information, and providing data analysis and information to support institutional planning. Currently, the office is equipped with the appropriate hardware and software to complete surveys, data analysis, and reporting.

**Future Plan**
*The Office of Institutional Research intends to provide research information via the web, which might require additional resources.*

**Strategies/Resources**
- Upgrade hardware and software as required

11.2. MIS (Management Information Systems) Reporting

**Current Environment**
The MIS (Management Information Systems) at Santa Rosa Junior College are used to store, organize, and report on the vast array of data items collected by the institution. One of the primary users of this data is the California Community College Chancellor’s Office. The Chancellor’s office periodically receives the District’s unit record data for reports to state and federal agencies. In addition to the state, our students, faculty, and staff use the MIS data.

**Future Plan**
*There is an ever-growing demand for data to be available anywhere and anytime. Recent success has been achieved by delivering data of all kinds via the Web. Therefore, it is our intent to increase the amount of data available via the Web from our local servers.*

**Strategies/Resources**
- Annual investment in server technology (hardware and software) $20,000.
- Assign programmer to develop on-line reports.
12.0. Faculty, Administrator, & Staff Computers

12.1. Implement Total Cost of Ownership for hardware and software

**Current Environment**

The philosophy of the District has been to provide all those who could benefit with the appropriate desktop or portable computers. This philosophy has in large part been successfully implemented within the boundaries of limited funds. The process to replace systems is initiated by faculty, staff and administrators when they determine that they need to replace their technology. A review process is in place to validate the need for replacement and when necessary replacement systems are installed. Those without an assigned computer have access through open labs or shared computer resources. Software for these computers includes the standard Microsoft Office Suite (Word, Excel, Power Point and Outlook), virus protection software, Adobe products (InDesign, Acrobat, PhotoShop), Windows operating systems, Macintosh operating system (10 and above), and various specialty applications.

**Future Plan**

Establish a baseline of access to computers for faculty and staff that includes a technology replacement program for computers and related equipment at all sites. It is recommended that the College adopt the “Total Cost of Ownership” model presented in “Technology II Strategic Plan” including the following elements:

- There will be a Five year replacement rate for computers and related equipment if appropriate. If funding is not available then the average replacement rate will fall back to a Six year replacement cycle.
- One PC for every full-time faculty member who requests a computer.
- One PC/Mac for every four adjunct faculty.
- Each PC will be equipped with office software that includes word processing, spreadsheet, E-Mail, browser, anti-virus, and presentation design software.
- There will be a scanner for every 100 faculty, administrators, and staff.
- Each PC will have access to appropriate administrative systems and institutional data.
- Ninety percent of full-time administrators and classified staff will be provided with a PC, as appropriate.
- One laser printer to be shared for each 25 staff.
Each PC will have network access

Strategies/Resources

- Estimated cost to renew desktop technology (computers, printers, scanners, and faxes) every six years; $1200 \times 2,500 = $3,000,000.
- Computing Services will be acquiring and installing new desktop technology at an estimated 75 systems every three to four months.
- Computing Services will continue to evaluate new operating systems and software applications and update our standard installation image as appropriate. Recent examples of this evaluation process include Windows Vista, Windows 7 and Bootcamp/Parallels Desktop for Mac.

12.2. Implement Total Cost of Ownership to provide necessary support personnel to keep technology infrastructure working.

Current Environment

Currently, Computing Services has seven programmers, seven network technicians, one Telecommunications Technician, three E-Mail/Linux/Web administrators, one operations technician, one half-time help desk, one half-time web support specialist, one purchasing specialist and three administrators/managers.

Future Plan

Establish minimum staffing ratios so that appropriate support is available when needed. It is recommended that the College adopt the “Total Cost of Ownership” model presented in “Technology II Strategic Plan” including the following elements:

- There will be 1:3 ratio of support staff costs to hardware/software costs.
- There will be a ratio of one Senior Network Technician/System Administrator for every 500 PC’s.
- There will be a ratio of one Technical Manager per 500 PC’s.
- There will be a ratio of one Web Administrator for every 12,000 full-time equivalent students (FTES).
- There will be one desktop support staff for every 150 PC’s supported.
- There will be one staff per every 6,000 FTES to support E-mail systems and web applications.
- There will be one staff per every 12,000 FTES for Administrative Systems Support.
Strategies/Resources

- Hire 1.5 FTE Help Desk technicians: $88,647 annually.
- Hire 1 FTE Web Administrator: $85,533 annually.
- Hire 1 FTE E-mail Administrator: $85,533 annually.
- Hire 1 FTE Network Technician: $85,533 annually.
- Hire 1 FTE Programmer Analyst $104,915 annually.
- Training for technology support staff to implement and support desktop technology $ 30,000 per year.
- Hire 1 FTE PC Trainer

13.0. Institutional Servers

13.1. Primary Administrative Server

Current Environment
The new (launched November 2008) SIS is supported by a group of Windows servers that distribute the workload among several web servers, application servers, Citrix servers and a Microsoft SQL database server. The server used for the administrative functions (Business, and Human Resources) is an HPe3000 model 989KS/450 running the MPE/iX operating system.

The migration to a new Student Information System with a scalable infrastructure and a relational database has greatly improved performance during high demand periods. In addition the legacy HPe3000 has also experienced improved performance because it is no longer the primary student registration system.

Future Plan
The necessity to constantly assess performance levels of the primary Student Services and Business Services server is obvious. There is a high expectation that performance will always be responsive to the demands of the institutional users. In order to provide this response, there has been, and will continue to be, appropriate resources applied to the primary administrative system.

Strategies/Resources

- Each spring semester analyze the performance of institutional servers.
- Based upon the annual system performance report, continue to make minor upgrades.
- Plan for periodic replacement (every five years) of institutional servers. Estimated cost: $150,000.
13.2. Windows/Linux Servers

Current Environment
The College has more than 50 different servers using the Windows and Linux operating systems. The most important servers are those used for our College Wide Information System (CWIS), Active Directory, E-Mail, Shared File Resources, SRJC Foundation, medical records (Medicat), Dental Office Training (Dentrix), Financial Aid, Purchasing, DHCP (Dynamic Host Configuration Protocol server), and Web Services.

Future Plan
The continued success of this farm of servers is dependent on three things. First, it is necessary to have technical staff that are trained and available to maintain and support the servers. Second, the existing servers must get periodic upgrades to the hardware, operating system software, and applications. Third, these systems must be replaced every five years, and new systems must be installed as new technologies come on-line.

Strategies/Resources
- Implement annual training program for Computing Services staff to maintain currency in new technologies and applications. Estimated cost: $25,000 ($6,000 existing and $19,000 new).
- Establish a general purpose server upgrade fund. Estimated cost: $20,000 annually.
- Establish an operational server replacement fund. Estimated cost: $35,000 annually.
- Establish an instructional server replacement fund. Estimated cost $25,000
- Purchase servers and install VMware to facilitate server consolidation and adhoc testing environment. Estimated cost: $35,000
- Purchase/replace Uninterruptible Power Systems: Estimated cost: $8,000 annually.
14.0. Networking Infrastructure

14.1 Wired Infrastructure, Switches, & Routers

Current Environment

The current environment is dominated by three recurring themes: dependability, speed, and security. Standards have been developed for the major facilities at the Santa Rosa Campus, Petaluma Campus, Technology Academy, Shone Farm, and Public Safety Training Center. Each site is connected with one or more high speed data lines. The high speed lines terminate at switches or routers that act as traffic cops to control incoming and outgoing information. Each site (Santa Rosa, Petaluma, Technology Academy and Public Safety Training Center) has a core switch (Cisco 6500, Cisco 3500, or Cisco 4000) that collects and distributes data to the remote rooms and buildings at Gigabit, Fast Ethernet, or Ethernet speeds. Buildings typically are connected with fiber or Category 6 copper wire, and have a Gigabit or Fast Ethernet switch, which serves as a collection point for other switches in the building. The users are connected to these switches by copper cable at speeds of ten megabits per second or 100 megabits per second. Most of the users have Category 6 cable connected to Cisco switches, but a small number are still using old Category 3 cable (slow connectivity) and 1900 level Cisco switches.

Internet connectivity is provided by a Gigabit (1000 Mb per sec) from CENIC (Corporation for Education Network Initiatives in California) at the Santa Rosa campus and the Public Safety Training Center.

Future Plan

*The technology used to connect users on local campuses and throughout the world has been changing at an ever-increasing rate. This trend is expected to continue into the future, which makes planning more short-term than long-term. The only observable constant is that users want faster, more dependable, and more secure networks. Therefore, the primary goal is to design our networks so that they deliver ever-increasing speed, dependability, and security.*

Strategies/Resources

- **Provide one or more building-to-building connections at one Gigabit.** Estimated Cost $225,000.
- **Within buildings the goal is to provide fast Ethernet (100 Mb) to the desktop using Cisco switches.**
- **Upgrade Bussman Hall core technology switches, routers, and security devices every five years.** Estimated cost $200,000 one time.

Replace network switches on a five-year cycle.
and $40,000 annually.

- Network equipment replacement/upgrades at Santa Rosa, Petaluma, and Windsor. Estimated cost $30,000 annually.
- One full-time Senior Network Technician should be hired for each 9,000 full-time equivalent students or 500 connected computers to support the network. Estimated cost $91,656.
- (Also see item 5.4 above) Establish College-wide Intranet streaming video capability. Estimated cost: One-time cost $300,000. Annual maintenance $31,000.

### 14.2 Implement Wireless Technology

**Current Environment**

No building-to-building wireless technology exists on any of the campuses. To date ten areas have been experimenting with wireless laptop technology: Bech Hall (Chem. Lab), Shuhaw Hall (Physics Lab), Bailey Hall, Lark Hall, Bussman Hall (Computing Services), Maggini Hall, Mahoney Library (Petaluma), Call Hall (Petaluma), Plover Hall, primary meeting rooms (Santa Rosa campus) and Doyle Library.

**Future Plan**

*Computing Services will continue to expand, where appropriate, the use of wireless technology for the staff and faculty that need to connect portable devices to district resources. In addition, a partnership between a local Internet service provider (Sonic.net) and SRJC will provide public wireless Internet access throughout the Santa Rosa and Petaluma campuses. We will assess the benefits of this free service on an annual basis to determine if this model works and explore expansion to other district sites.*

**Strategies/Resources**

- Wireless technologies should be considered in those areas where flexibility is more important than speed or security.
- Implement wireless technology in all buildings at the Santa Rosa Campus, Petaluma Campus, Technology Academy, and Windsor. Estimated cost $100,000 over the next five years.
- Sonic.net is to establish hot spots at various locations on the Santa Rosa, Petaluma, and Windsor sites that allow public wireless connectivity.
14.3 Migrate the SRJC core network to fiber connections and expand Storage Area Networks/Backup

Current Environment

Core site to site connections - One 100 MB data line, one 100 MB phone line and one 100 MB video connection provide service between Santa Rosa and Petaluma campuses. In the near future (3 years) the service agreement that provides our fiber connection between Santa Rosa and Petaluma will expire. There are two data T1’s between Santa Rosa and Petaluma that provide for redundancy between the campuses. One gigabit link exists between the Santa Rosa and Windsor campus with an additional T1 line providing redundancy. Cable modem lines link the Small Business Development Center, Environmental Health & Safety, Institutional Research, Culinary Arts Center, and the Custodial Services building to the Santa Rosa Campus.

SAN Storage – The colleges uses an HP EVA3000 SAN that needs to be replaced to be compatible with virtual computer software such as VMware.

SAN Backup – The College uses a disk to disk to tape backup methodology. This provides us with quick backup on a scheduled basis and long term backup to tape without interrupting our production servers.

Future Plan

Migrate the SRJC “core” network to faster links that provide high-speed low-delay information transfer capacity suited for data intensive applications that require near real time mixed media communications. Examples would be, increasing our 100 mb connections between Santa Rosa and Petaluma and adding servers to our fiber based Storage Area Network and Backup System.

Strategies/Resources

• Increase the access of our existing 100 MB connection between Santa Rosa and Petaluma as required.
• Find a new vendor to provide network communication between Santa Rosa and Petaluma Annual cost $20,000.
• Add DS3 circuit to PSTC for higher speed connection to SRJC campus no additional charge.
• Purchase a new SAN device and migrate from the HP EVA30000 (Estimated cost $80,000).
15.0. Telephone, Fax & Voice Mail Systems

15.1 Standard Telephone Service and Voice Mail

**Current Environment**

The Mitel SX-2000 Light phone switch provides services to the Santa Rosa Campus, Petaluma Campus, and Windsor Public Safety Training Center. This switch has over 1900 analog and digital ports that provide phone and fax connections for the various campuses. It has done a good job of meeting the historic needs of the institution and has the ability to expand in the future. Expansion at the Santa Rosa Campus is an immediate need.

The Centigram/Baypoint voice mail system provides voice message service to all users on the Santa Rosa Campus, Petaluma Campus, and Windsor Public Safety Training Center. The capacity of this system should meet the needs of the institution for the next year. Our projections indicate that we may need to migrate to an integrated Windows compatible voice mail/email system in the fall of 2010.

**Future Plan**

The existing Mitel SX-2000 Light phone switch has the ability to expand and meet the needs of the institution for the next several years. Several buildings on the Santa Rosa Campus have no or minimal phone connectivity expansion. Buildings with immediate need for more phone connectivity include: Button, and Emeritus.

Prepare for the migration from the Centigram/Baypoint voice mail system to a Windows version that integrates with Exchange 2007.

**Strategies/Resources**

- Upgrade phone system to provide for additional growth.
- Expand phone connectivity in Bech Temps, Lark Temps, Button, Barnett Hall, Tauzer Gym, Pioneer Hall, Quinn Swim Center, and Emeritus. Estimated cost: Get contractor quotes.
- Upgrade the Mitel Phone switch at Santa Rosa, Petaluma and Windsor to allow 911 calls to be traced to their source. This would allow police/fire/medical to know where the 911 call came from. Estimated cost: One time $70,000, annual maintenance $5,000.
- Replace Centigram/Baypoint voice mail systems with solution that seamlessly integrates with Exchange/Outlook 2007: One time cost $120,000, annual maintenance $20,000.
15.2. Voice over IP and IP Telephony

**Current Environment**
Voice-over-IP (VoIP) is the technology that allows users to exchange voice data over an Internet connection through their computers or phones. IP Telephony allows data, voice, and video to be transmitted over a single network infrastructure.

Some of the projected benefits include:
- Reduced administrative costs
- More flexibility in application deployment to the desktop
- Increased personal and workgroup productivity
- Direct classroom support lines

**Future Plan**
- Implement Voice over IP in the new Bertolini Student center and explore expansion of Voice over IP in other areas of the Santa Rosa Campus and Petaluma Campus. This will require a Cisco Call Manager upgrade to 6.1 and license/phone and a router purchase. Cost $114,000.00

**Strategies/Resources**
- Currently in service is a Cisco Call manager 4.1 with redundant server and PRI connection to the Mitel PBX with aprox 100 phones in service. Ideally an upgrade and expansion in 2009 to encompass Bertolini center. Estimated cost $40,000.

16.0. Internet Services

16.1. E-mail Systems - Administrative

**Current Environment**
SRJC uses a state-of-the-art E-mail system called Exchange/Outlook. Exchange 2007 is the software application that routes the mail to each recipient, and Outlook is the software that reads and creates messages. In conjunction with Exchange, SRJC uses an Iron port hardware appliance to monitor and reduce the amount of Spam received by our E-Mail users.

**On-Campus services**
Those users who use the full Outlook client have access to the following services:
- E-mail (including attachments from any of the Microsoft Office...
Electronic scheduling for group meetings and facilities
Personal calendar for appointments and automatic notification
Personal task lists
Access to Public Folders
Ability to send/receive routed forms
Access to College-wide address book and distribution lists
Ability to create and maintain personal address lists
Off-Campus services with Citrix

Off-Campus services
If users need to connect to the Microsoft Exchange Server from remote locations, they can use a Web browser like Internet Explorer, Firefox or Safari. When they use the Outlook Web Client, they have access to the following features:

- Basic e-mail. Outlook Web Access users can address mail using the Microsoft Exchange Global Address Book, send and receive file attachments and hyperlinks, set messaging priorities, and request delivery and read receipts. Also, they can use hierarchical folders, the Outlook bar, and group and sort messages in a folder based on standard fields or a conversation thread.
- Basic calendar and group scheduling. Users can create one-time or recurring appointments in a personal calendar and access daily and weekly views of the calendar. Also, they can view free/busy times for multiple users and resources when scheduling a meeting, and automatically send and respond to meeting requests by using e-mail.
- Basic public folder access. Users can access custom table views in public folders and group and sort messages in a folder based on standard fields or a conversation thread.

Future Plan
Originally the Outlook E-mail system was designed to accommodate approximately 900 full-time staff, instructors, administrators, and 1,200 adjunct faculty. Over 95% of our full-time employees are actively using the E-mail system, and a growing number of adjuncts are using the system. Starting in fall 2009 all adjunct instructors will be required to use the Exchange server to communicate with the college. The increase in use by adjunct faculty may require an upgrade to the Exchange server. In addition to the possible need to upgrade the Exchange server there is a growing list of legal issues that require timely retrieval of any message received or sent from Exchange.

In December 2006, new rules took effect(Federal Rules of Civil Procedure) in federal courts governing the discovery of electronically
stored information – information that is stored within emails, instant messages, voice-mails, text messages, documents, spreadsheets, databases, files, metadata, images, diagrams, etc. The new rules apply to every type of electronic media including hard drives, thumb drives, computer memory, server storage, handheld devices, optical disks, etc.

The newly revised Federal rules of Civil Procedure call for an exhaustive search for all electronically stored information (ESI), including email, which is “in the possession, custody, or control of the party.” It must be disclosed “without awaiting a discovery request” (Rule 26(a)(1)). Most legal experts believe that this provision means that if even one member of the faculty, staff, administration, or Board has a copy of a relevant email on a laptop or home PC, then it is “in the possession, custody, or control of the party.” Therefore the email must be found quickly and disclosed.

In order to allow for timely response to legal requests SRJC needs to purchase an email archiving system with a significant search capability for electronic discovery.

**Strategies/Resources**

- **Hire one full-time E-mail administrator for each 1,000 staff accounts. Estimated cost $85,000.**
- **Offer regular Outlook training classes (beginning, intermediate, and specialty).**
- **Increase awareness of adjunct faculty about the availability of Outlook and its benefits.**
- **Pilot test wireless E-mail on Santa Rosa Campus to Personal Digital Assistants (PDA’s). Estimated cost $20,000.**
- **Replace E-mail servers every four years. Estimated cost: $15,000 annually.**
- **Increase awareness and use of Citrix Server. This should allow Apple and Windows users to use Outlook on campus and from home. Estimated cost $25,000 one time and $4,000 annually.**
- **Purchase an email archiving, electronic discovery, and content monitoring system. Estimated cost $75,000 over three years.**

**16.2. E-mail Systems - Students**

**Current Environment**

Every student who is enrolled at Santa Rosa JC is eligible for a free E-Mail account. The only restriction is the requirement that they submit a request to have the account created. The largest majority of students who
request accounts come from students enrolled in on-line classes. Currently this is a small percentage of the total student population.

**Future Plan**

We are in the process of rewriting our Student Information Software package. One of the targets of this rewrite is to create a student portal for every student and one of the planned features of this portal is automatic communication via E-Mail. Therefore, it is the intention of Computing Services to create automatic E-Mail accounts for students when they enroll.

**Strategies/Resources**

- Hire one full-time E-Mail administrator to manage and support 50,000 student E-Mail accounts. Estimated cost $85,000.

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### 16.3. College Wide Information System (CWIS)

**Current Environment**

During 2004 the CWIS went through a major redesign. The new design introduced a consistent menu system, a new organization, and a thematic look and feel. The CWIS is an organized collection of web pages that provides information on most of our College services. It continues to be a starting point for thousands of visitors each month. These visitors include students (past, present, and future), parents, business leaders, foreigners, other colleges, and other agencies. Some of the information available includes: schedule of classes, on-line application and registration, college catalog, maps, District policies, academic departments, admissions, articulation, assessment, counseling, scholarship, calendars, institutional documents, committee agendas, and student information.

**Future Plan**

*The demand for information continues to grow. To meet this demand we will need to use every resource at our disposal. One of the most powerful and democratic resources at our disposal is the Internet. Therefore the dominant theme for Santa Rosa Junior College will be to use its Internet and Intranet capability to deliver dynamic information to everyone whenever they need it.*

**Strategies/Resources**

- Add one full-time Web Support Specialist to continue with the CWIS redesign. Estimated cost $66,000.
- Continue to assess CWIS for compliance with Title II and Section 504 of the Americans with Disabilities Act regulations. Assess the following:
  - Images have associated text fields (alt tags) that describe
Implement on-line staff directory.

Replace Web Servers on a four-year cycle.

The image

- All forms are designed to have only one text entry box per line
- Image maps have corresponding text-only navigational bars
- Hot links are on individual lines
- All navigational icons have corresponding text hotlinks
- The navigational text at the bottom of each page is separated by spaces or vertical bars
- Utilizes simplified tables for straightforward data presentation

- Implement on-line staff directory with pictures.
- Assist departments in Web page development.
- Improve web search tools.
- Replace Web Servers every four years. Estimated cost $20,000 annually.

17.0. Security - Firewall and Wireless Access

17.1. Firewall Security

**Current Environment**
Santa Rosa Junior College shares a common network infrastructure that provides Local Area and Wide Area network access to instructional and operational users. For those users who come in from off-campus locations, we have a Cisco ASA 5520 firewall that filters unwanted traffic. In addition, users requiring secure resources must provide a user name and password to gain access to systems. Typically, student data, E-mail (Outlook users), and restricted data are transported in encrypted packets. On campus users are restricted by the use of Vlans and Active Directory security groups.

**Future Plan**
The existing network infrastructure provides a functional solution to the needs of instructional and non-instructional users. It contains appropriate restrictions that provide a reasonably secure environment. As the use of the network continues to expand, there will be increasing pressure to separate the instructional users from the non-instructional users. This is because non-instructional users deal with data that has high-security requirements, and instructional users want connectivity with minimal restrictions.
Strategies/Resources

- Design and implement (if needed) separate networks for instructional users and non-instructional users. Estimated Cost: $1,300,000 over five years.
- Provide for wireless connectivity for students on-campus (SR, Petaluma and Windsor). Our partnership with Sonic.Net may solve this challenge.
- Provide for replacement of Adaptive Security Appliance (ASA) firewall every five years. Estimated Cost $40,000.
- Provide security training for Computing Services staff. Estimated annual cost: $4,000.
- Purchase network-monitoring tools. Estimated cost $10,000 per year.
- Implement the following five security strategies for Santa Rosa Junior College: Estimated cost $150,000.

1. Perimeter Security – ASA 5520 Firewall

- Firewalls, router Access lists (ACL’s)
- Perimeter security is the first line of defense
- Ports open for needed services can be exploited by hackers/attacks

2. Network Based Intrusion Detection

- **IDS 4250, 4235, or 4210**
- Network appliances snooping traffic to locate attacks and alert or act against them
- Use to locate attacks behind perimeter security
- Can dynamically change ACL’s on the PIX and routers to contain attacks
- Extensive reporting tools on network violators

3. Host-Based Intrusion Detection

- Cisco Security Agent Manager/Server and Desktop agents
- Software loaded onto critical servers and possibly desktop clients
- Provides a “shim” between the OS and the kernel which looks for malicious API calls
- Integrated personal firewall software to create a complete “network firewall”
- Helps prevent internal DOS attacks and compromised machines

- Cisco Secure Access Control Server
- Implement at network access points to authenticate remote/ wireless users
- Authenticate admin access to all network devices (routers, switches etc)
- Authentication Verifies identity — who are you?
- Authorization Configures integrity - what are you permitted to do?
- Accounting Assists with audit — what did you do?

5. Security Management

- VPN and Security Management Solution
- Single console for security management
- Web-based tools for configuring, monitoring, and troubleshooting security devices.

17.2. Wireless Access Points

Current Environment

We have been researching different tools for managing our wireless access points. Currently 2 tools are being looked at. The first is the Cisco Wireless Control System (WCS) which provides centralized management of Aironet access points and LAN controllers. The second is Airwave Management Platform which is a software solution (a dedicated PC would be required).

Future Plan

Continue to use the WLSE device to manage our wireless access points.

Strategies/Resources

- Implement wireless access point management system. Estimated cost: One time $ 35,000. Annual maintenance $3,500.
- Training to implement access point management system. Estimated cost: One time $ 5,000.
18.0. Help Desk & Support Services

Current Environment
The Help Desk provides technical software, hardware, and network problem resolution to all District computer users by performing question/problem diagnosis and guiding users through step-by-step solutions from the call center. In the event that a call cannot be resolved over the phone, the Help Desk will record the call and pass a request to a Network Technician for problem resolution. Currently there is one half-time technician assigned to this task, and Network Technicians are assigned as needed.

Future Plan
The three big challenges facing this area are staffing, training, and technology. First, we need to increase the number of staff to provide coverage from 8 a.m. to 9 p.m. Second, we need to provide software and hardware training to the Help Desk staff so they deliver knowledgeable answers to end-user questions. Third, we need to provide new computers and software tools to improve the effectiveness of the Help Desk staff.

Strategies/Resources
- Add one-and-one-half full-time equivalent Help Desk staff. Estimated Cost $89,000.
- Provide training opportunities to Help Desk staff. Estimated Cost $3,000 annually.
- Purchase new Windows and Macintosh computers for Help Desk staff. Estimated cost $12,000 every three years.

19.0. Promising new technologies

19.1. Video instant messaging

Current Environment
Videoconferencing has tended to be hardware-centric and required a number of components to create a total solution, which often gets very little use in organizations. By contrast, video instant messaging makes video communications available to the desktop user. The promise of the technology, is that it integrates with desktop applications and groupware, including: voice, video and Web collaboration tools making video available to users through standard applications and workflow processes. The typical user would record a video message and deliver it via E-mail
or a Web link. This recorded message is a type of super E-mail with recorded video, audio, and attachments. Ultimately it becomes videoconferencing when the link between two or more participants becomes interactive.

**Future Plan**

- Continue to investigate.

**Strategies/Resources**

- Pilot test if staffing is available.

### 19.2 Classroom Response systems

#### Current Environment

*A new technology has emerged on campus that needs to be investigated. The systems are sometimes called classroom response systems or “Clickers.” At this point they are being adopted at an individual class level often related to textbook publishers. Many Universities and Colleges have adopted a “standard” that allows these devices to perform attendance functions as well as testing and assessment. This technology holds good promise to aid in Learning Outcome goals.*

#### Future Plan

*The college should form a working group to investigate the potential implementation of this technology and determine if the current random implementation is the best approach or if a Campus wired implementation is preferred.*

**Strategies/Resources**

- Determine appropriate college personnel to serve on workgroup

### Appendix A

**Summary of Accomplishments 2007 and Beyond**

#### 1.0. Instructional Computing Labs and Classrooms

- Upgraded the following instructional areas with new computers; 252 total computers purchased:
  - Chemistry
  - Computer Science Labs (2)
  - Communication Studies/Forensics Lab
  - Disability Resources
  - Health Science
- Library/Information Literacy
- Life Sciences
- Math
- Multi-curricular Computer Labs
- Petaluma Computer Labs (3)
- Petaluma/DRD
- Petaluma/new relocatables
- Various classroom media upgrade setups
- Various Assistive Access Stations for students with disabilities

- Upgraded the following instructional areas with competent used equipment freed up by the above purchases
  -- 139 total computers redistributed:
  - English/Reading Lab
  - MESA
  - Music
  - Petaluma various
  - Public Safety Training
  - Puente
  - SRT
  - Trade Tech/Auto
  - Trade Tech/Machine Tool

- Purchased software license agreements from 38 publishers on current version releases of over 100 titles. Notable examples include:
  - Network Associates (virus protection)
  - AutoCAD ACES Campus Solution (AutoCAD suite)
  - Adobe (PhotoShop, Illustrator, PageMaker, InDesign, Acrobat)
  - ESRI (ArcView GIS suite)
  - Symantec (Utilities, Ghost)
  - Macromedia (Dreamweaver, Flash, Fireworks)
  - Dragon Naturally Speaking (voice recognition)
  - MapleSoft (Math)
  - Microsoft MSDN Academic Alliance
  - Turnitin Plagiarism Prevention

### 2.0. Library and Information Resources

- Purchased and installed integrated library system.
- Migrated library bibliographic records into new database structure.
- Upgraded computer staff workstations to accommodate new system (Plover & Mahoney)
- Added wireless capabilities at Mahoney Library in Conjunction with Computing Services.
• Added six laptops for public use (Mahoney)
• Upgraded 10 public workstations (Plover)

3.0. Open Learning

• CATE has added the ability to build websites for instructional departments in dynamically generated environments with user-friendly maintenance interfaces. The intent of this service is to provide departments the ability to control their own sites. Currently twelve departments have either activated new websites or in varying stages of completion.

• CATE has continued to expand and refine its software solution by providing improved class Message Boards and many more student-oriented automated administrative routines for faculty.

• In collaboration with Computing Services, students can now click on the "Details" link in the online schedule of classes to reach section homepages created by faculty with the CATE system.

4.0. Technology Academy

• For profit seminars in areas of industry-specific certifications have been delivered without impacting the credit program

• The website for the Technology Academy has been updated

• Additional curriculum has been developed to expand the computer forensics/security focus of the networking program

• Added Wireless and Security strands to the Cisco Academy program

• Potential Advisory Board Committee members have been initially identified

• New curriculum development for a certificate in ENVT-Water Technology (Fall-08)

• New technologies and classes evaluated to potentially be part of the Academy’s offerings
• Evaluation of a new direction for the Academy, e.g. Name, Course offerings, Faculty recruitment

• Expansion of Cisco Academy to other counties is ongoing

• VATEA grant for 07-08 for curriculum development and production of interactive, multimedia promotional instrument

5.0. Media Services

• 89 Classrooms were upgraded to the campus standard for media enhanced use. For the two in Baker hall, additional work was done to improve the physical functionality of the space

• 98 computer projectors were purchased to replace existing equipment

• 41 DVD Players were installed in classrooms around the District.

• Additional equipment was purchase to replace support equipment in existing classroom installations

• Newman Auditorium phase one work was done to allow multiple camera recordings to DVD and the ability to send to other buildings and sites via video conferencing. The 16 year old control system was upgraded and additional features and programming was accomplished and the existing stage light fixtures were replaced

• A significant development was the purchase of a lifetime site license for an I.P. based classroom media control system (Sight 126) that has allowed much simpler and more consistent instructor operation of media systems throughout the District

• A video conferencing system was purchased for the Doyle Library to accommodate increased demand (both administrative and instructional)

• New portable sound reinforcement systems were purchased for both the Santa Rosa and Petaluma campuses

• Some high tech portable carts were purchased to allow both portable projectors and document cameras to be shared between multiple classrooms
• Replacement overhead projectors, easels, camcorders, digital still cameras, digital audio recorders and carts were acquired for the “check-out” function in Media Services

• A high definition projection system in Carol Ellis Auditorium was built and includes surround sound and multi-camera video conferencing in Petaluma

6.0. Technology for those with disabilities

• Created small-group instruction format for Dragon Naturally Speaking and Kurzweil.

• Installed new instructor station with Dept’s LD projector and mini Dell 260 (console purchased by Ac Computing). Projector continues to be shared with other instructional situations.

• Initiated assistive technology instruction and support on the Petaluma campus, both small-group and individual formats.

• Conducted training of Petaluma computer lab and library staff in Kurzweil and intro to Dragon Naturally Speaking.

• Procured new Dell computers for Petaluma for assistive technology use through academic computing.

• Changed name from "High Tech Center" to "Assistive Technology Training Center" (“ATTC”) to better reflect what we do and educate campus community.

• Increased uniformity of software programs in ATTC:
  › Added ghosting software and created temporary server station for efficiency and consistency when updating software and reformatting lab computers.
  › Increased number of Clarity autofocus readers on campus, provided demonstration for library staff.
  › Added two additional GX-400 workstations (2003-2004) in ATTC/Tutorial lab for use as drop-in stations. Stations include assistive technology software and are available to all DRD students.
  › Began inventory of all campus access workstations to determine needs and currency.
  › Transferred inventory of ATTC lab equipment and software to FileMaker Pro database.

• Formed new Department Assistive Technology Committee with representatives from alternate media/tech support, Learning Disabilities, Psychology, Physics, learning facilitators and ATTC.
• Conducted five assistive technology trainings for DRD staff.
• Worked with Academic Computing to centralize assistive software purchases by them for the District including the ATTC.
• Improved current Dragon Naturally Speaking curriculum to include interactive worksheets, competency demonstrations (on-going, still needs editing, v8 update)
• Created online Orientation to ATTC and link from DRD on the SRJC webpage.
• Created ATTC Technical web page on CWIS for use by campus lab text to reference current assistive technology software versions, updates, fixes, patches and vendor information.
• Created ergonomic standards for student workstations.
• Conducted presentation for District (PDA) in assistive technology (Dragon Naturally Speaking and Kurzweil).
• Conducted presentation in Web Accessibility for CIS web design class.

7.0. Staff development and training

8.0. Student Services Systems

• The Student Affairs web site received comprehensive overhaul since the last tech plan thanks to the work of the Activities Advisor in coordination with the Student Services Web Design Specialist.
• Two new ID systems and laptops were acquired (one for each campus) that will accommodate Smart Card technology.
• The successful move of the CyBear Center/ID operation into Pioneer Hall was accomplished. This required the careful planning of the Computing Services network technicians. It was a very efficiently run process.
• DRD developed the new Assistive Technology Center, including a training center (for small-group instruction) and a multiuse computer classroom for large group instruction and assistive technology computer lab use.
• A&R received new color laser printer and new transcript printer; will need to evaluate need every 3 years.
• A&R is now using windows based enrollment management technology to regularly electronically communicate with students.

• The CyBear Center was outfitted with all new technology including 6 PCs, 2 Macs, and a new full-service, color copier.

• The successful transition of SAFERS to FAM, off the mainframe and into the brave new world of SQL server!

• CalWORKs has converted its 1997 Access Student Case Management Database into Access 2003; this newer version was developed to collect additional data elements required by the Chancellor’s Office beginning in summer 2007. Computing Services is in the process of creating a short term “fix” to collect this data through MIS. In the future, a version will be developed using the new windows-based student records management system.

• When Student Financial Services moved to Plover Hall, student kiosk access increased from 2 to 8 stations that are used regularly for scholarship searches and completing the FAFSA on the Web.

• Every attempt will be made to phase out TIER (telephone registration, formerly TLC) by the end of the 2006-07 academic year. However, it is contingent on the installation of a Spanish version of weblink

• Three digital signage systems, used by A&R, Student Financial Services, Assessment and New Student Programs, were installed in the remodeled Plover Hall by June 2008.

• TIER was eliminated effective September 2008 saving the District approximately $15,000 per year.

• Assessment will temporarily be relocated to another building prior to moving into Plover Hall in the spring of 2008.

• At the Petaluma Campus there is an additional Assessment Center located temporarily in the Call Hall Building with plans to move to a newly constructed building in the end of the fall semester 2008.

• One time costs - 45 personal computers, a networked system, and individual testing units is ~$90,000.

• Increase of student kiosk availability in Plover to 8 from 2; these are being used daily by students.
• Successful transition from SAFERS to Regent FAM.

• Successful integration of FAM to the mainframe for a 2 year period, while being new SIS compatible.

• Smooth move to Plover with rapid install of IT in new location, to be able to serve students.

• In summer 2008, one additional computer workstation was added to the EOPS program with categorical funds when the EOPS Outreach Specialist moved to Plover. This station is used by the two student aides who provide clerical support and student information in support of the Outreach Specialist's functions.

• In the spring of 2008, an EOPS Counselor's computer workstation in the EOPS office at the Santa Rosa campus was upgraded with a new computer funded by the district.

• In the fall of 2007, the following computer workstations in the EOPS office at Santa Rosa were upgraded with new computers: the EOPS Administrative Assistant, an EOPS Counselor, the EOPS Outreach Specialist, and the EOPS Intake Technician and CARE Coordinator. In addition, the shared laser printer was also replaced. All of these purchases were made with district funds.

• The EOPS staff who received the computer upgrades during 2007-08 also had DVD-RW drives and players installed in their new workstations.

• A dedicated laptop computer, LCD projector, screen, and sound system have been provided with district funds for EOPS outreach and recruitment in the Petaluma Campus service area. Similar technology except for the laptop computer has also been provided for EOPS outreach presentations in Spanish throughout the Santa Rosa Campus service area.

• In addition, the following hardware has been provided by the district for EOPS outreach presentations: wireless mouse with laser pointer; computer software to edit sound/video; and a color printer/scanner for picture scanning.

• Transition to an electronic medical records system (EMR) was completed spring 2008 for the medical records in the department. 9000 existing charts were scanned and stored electronically for clinician access, (50,012 pages scanned). This has accomplished a seamless charting system that assures continuity between the two service sites in Santa Rosa and Petaluma. Mental health records remain paper based currently, with plans to convert in the future.
• Beginning implementation of Petaluma Phase II technology expansion. Due to be completed spring ’09.

• The Student Affairs website received comprehensive overhaul since the last tech plan thanks to the work of the Activities Advisor in coordination with the Student Services Web Design Specialist.

• Two new ID systems and laptops were acquired (one for each campus) that will accommodate One Card technology.

• The successful move of the CyBear Center/ID operation into Pioneer Hall was accomplished. This required the careful planning of the Computing Services network technicians. It was a very efficiently run process.

• Hiring of an Assistive Technology Coordinator.

• Development of a classroom on the Santa Rosa Campus.

• Development of scheduled workshops/learning modules to teach specific software applications.

• Acquisition of “Kurzweil to Go” licenses to allow carryover of learned technology skills to home use for academic purposes.

• Addition of accessible student work stations in the Tutoring Center.

• Purchasing of a L.A.C.E system for student use.

• Purchasing of new software to explore benefits for students including: Word Q, Dolphin Tutor, Magic Screen Reader, Read and Write Gold, Victor Streams and Classic Plus, Corner Stone, and Inspiration.

• Updating CCTVS to 2 Onyx and 2 Acrobat machines, making them portable.

• Purchase of 75 digital recorders and 25 MP3 players for students to check out for the semester.

• With few exceptions, outfitted the Petaluma Phase II and R with the appropriate technology for a comprehensive Student Services program.

• Implementing all necessary hardware and software technology for the newly remodeled Plover Hall.
9.0. Business Services & Human Resources

- Implemented new payroll system providing more accuracy and flexibility.
- Designed and developed new reporting tools for Payroll and Human Resources. These tools provide automatic data extracts that can be viewed on-screen or in Microsoft Excel. These tools give end users greater control of organized reports and faster performance.
- Designed and developed new reporting tools for the Business Office to import data from printed reports to Excel. Reports that can use this new tool include the “Total Employee Costs”, “Budget Summary”, “Financial Activity”, “Detailed General Ledger”, “Open Payables”, “Budget Development Changes Tracking”, “Payroll History”, and “Voluntary Deductions”.
- Designed and developed pay card program. This application automated the payroll process for hourly instructors. It includes the ability to extract data into Excel.
- Automated the process of distributing payroll reports to budget managers.
- Designed and developed accounts receivable program for the Business Office to create and track invoices sent to various individuals and agencies.
- Designed and developed warrant tracking program to assist the business office with reconciliations.

10.0. California Community College Software Consortium Project

- Designed and developed a new Student Information Software System. This project is using current hardware and software tools (Microsoft Visual Studio and SQL server). This project included software modules for Curriculum, Scheduling, Registration, Web Registration, Student Portal, and Faculty Portal.
- Designed and developed an on-line credit card processing system that allows students to make payments over the web.
- Implemented a new interface to the web course lookup that provides automatic links to departmental web pages.
• Upgraded the certificates and majors pages so that students can access multiple versions based on catalog rights. This application provides “hot links” to the course descriptions and available sections.

• Participated in pilot testing of automated transcript transfers between Community Colleges and four year colleges.

• Completed the documentation for the Scheduling Module for the Student Registration Software System.

• Implemented new version of ATI filer with new scanners.

• Developed a bulk E-Mailing capability. This process allows the College to electronically identify special populations and distribute E-Mail.

11.0. Institutional Research/MIS Reporting

• Produced Santa Rosa Junior College FACT BOOK 2004
• Implemented new College Test for English placement (CTEP).
• Developed new data-mining spreadsheets for research and enrollment management.

12.0. Faculty, Administrator, & Staff Computers

• Computing services has installed 240 Windows based desktop computers.
• Computing services has installed 30 Windows based laptop computers.
• Computing services has installed 50 Mac based desktop computers.
• Computing services has installed 30 Mac based laptop computers.
• Computing services has installed over 100 reassigned Windows based desktop computers.
• Computing services has installed 25 reassigned Mac based desktop computers.
• Computing services has installed 100 inkjet personal printers.
• Computing services has installed 40 laser jet printers.

13.0. Servers
• BUS-HOME3 (File Server for staff/faculty home directories and dept. shares)
• Exchange 2007 Installation/Migration + Client Migrations
• Financial Aid – New database server
• Citrix Upgrade – Version 4 to 4.5 to 5.0
• Compass (Assessment Lab) Installation/Setup
• Foundation – Raiser’s Edge upgrade
• Health Services – Medicat upgrade (2)
• Campus DHCP & Terminal Services Licensing upgrade
• Expansion/Implementation of disk backup for campus servers
• SAN Expansion – 2 terabytes
• Network Tech Database (Internal Documentation)
• Apple Macintosh Centralized client management

14.0. Networking Infrastructure

Wired infrastructure

• Computing Services has continued to deploy and upgrade to gigabit connected top of stack edge switching when appropriate.

Wireless infrastructure

• Computing Services has worked in conjunction with Sonic.net to provide free public wireless access to the internet via devices installed all over the Santa Rosa campus.
• Sonic has covered all major buildings on the campus with the exception of Analy Village.
• Computing Services continues to manage public wireless access in Doyle library, Analy Village and the Petaluma campus
• Computing Services continues to mange a Staff wireless network in limited area’s around the Santa Rosa campus.
• Main changes:
  • Continued Access point additions on Santa Rosa, Petaluma, Windsor, Shone Farm locations. Expansion from approximately 85 units to our current count of 104 units.
  • Wireless Control System upgrade from 4.2 to version 5.2.130.0
  • Wireless Service Module upgrade from 4.2 to 5.2.178.0
• Access Points (approximately 100 devices around campus) upgrade from 4.2 to 5.2.178 (IOS 12.4(18a)JA1)
• Captive Portal Services: (public wireless)
• Retired Firstspot server which handled the following services for our public wireless: captive portal splash screen, access control, DHCP services.
• Activated new integrated features built into Wireless Service Module version 5.2 and customized – created a much more robust and centralized solution with identical services
• Clean Access:
• Developed and integrated new wireless solution for outside users. The clean access solution allows users to create temporary accounts on the fly with customized access based on their credentials. The solution also offers a feature that will limit network exposure to compromised outside systems. The Clean Access solution is not limited to wireless but has been successfully utilized in this regard.

15.0. Telephone, Fax & Voice Mail Systems

• Computing Services has installed and is a utilizing Cisco Voice over IP phone system in selected buildings across the campus, including Petaluma, Shone farm and remote office’s such as the Southwest Center.
• Computing Services technicians have expanded VOIP services to remote campus sites and are planning an extensive upgrade and expansion into the Bertolini student center and the Plover hall administration building.

16.0. Internet Services

• Developed web software to provide faculty a mechanism to record, review, and manage Flex activities.
• Implemented File Depot service allowing users to store large documents on SRJC servers and distribute to other users by using a URL.
• Went from text based web analysis to webalizer (colors and somewhat customizable)
• Conversion to private IP addresses near completion.
• Email software migration from Exchange 5.5 to Exchange 2000.
• Email operating systems upgraded from NT to W2K.
• With the addition of busapp01 we are now up to total of seven secure servers.

• Development and implementation of SRJC web standard guidelines.

• Improved co-ordination between Human Resources, Public Relations, and Computing Services relative to online phone directory, user adds/deletes, and departmental web pages.

• Integration of spam assassin, partial SPF (sender policy framework), RBS (real time blackhole), Clam, MacAfee antivirus/antispam tools into email.

• Provided tools to users to help stop spam from reaching their desktop.

• Migrated from multiple tape units and various software packages to multiple tape libraries on a single SAN and backup software package.

• Upgraded almost all Red Hat Linux (version 7 & 9) boxes to RHEL (Red Hat Enterprise Linux).

• Implemented Nagios - a new network monitoring tool.

• Completed forms project for budget transfers.

• Implemented on-line Staff Directory.

• Created new on-line "Ask a Counselor", "Home Page", "Student Help" processes using mySQL databases and "phpSupport".

• Developed external access for statewide agriculture PowerPoint project via Citrix.

• Moved the machine "student" into the DMZ.

• Computing Services and Public Relations completed web redesign with many new features and new "look and feel".

• Improved software integrations with CATE and maintainers.

• Eliminated many outdated user accounts

• Established quotas for student machine

• Created many FAQ web pages to handle routine processes (password changing, account application, Citrix logons)

• Added remote DNS secondary server for Petaluma Campus.

• Re-writes of many departmental web pages and several new departments brought online.

• Replaced almost all old ARM and HP servers with new Dell servers.

• Created a Web Development machine to test new web pages prior to production.

• Installed UPS battery backups for all production machines.
17.0. Security - Firewall

- Upgraded to the latest version of Solarwinds.net (Network Management Tools).

18.0. Help Desk & Support Services

- Help Desk processed 3764 requests for service in the most recent year.

New Facilities Service

- Engineering/design of network/telecom infrastructure new facilities at Petaluma campus and install and turn up of services.
- Engineer/design of network/telecom infrastructure for phase 2 Petaluma campus remodel and install and turn up of services.
- Engineer/design of network/telecom infrastructure for Plover Hall remodel at the Santa Rosa campus and install and turn up of services.
- Computing Services implemented a new 50 station assessment testing lab in Plover hall
- Engineer / design of network infrastructure for various remote campus sites such as the Southwest center, senior center and offices on Elliot Ave.
- Computing Services has worked closely with facilities operations in order to provide the HVAC systems remote management connectivity, this is an ongoing project.
- Computing Services has worked closely with campus police to provide network connectivity to the campus wide security system and card access systems.
- Computing Services has facilitated temporary data/telecom service across the campus for contractors remote offices placed on campus for various ongoing construction projects.
- Currently involved in engineering/design/turn up of the new Bertolini student services building Santa Rosa campus
- Computing Services worked in conjunction with our internet bandwidth provider (CENIC) to increase our throughput for internet connectivity to 1gig.
- Computing Services worked with CENIC to obtain a physical link DS3 circuit to the PSTC location in Windsor. This enabled Computing Services to retire the slower and more vulnerable point to point wireless connection that served that location.