

**INFORMATION TECHNOLOGY  
PROGRAM REVIEW  
2008-09**



College  
OF THE  
Siskiyou

Submitted Spring 2009

College of the Siskiyou  
*(Siskiyou Joint Community College District)*  
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**Program Review Approvals**  
Information Technology Department – Annual Program Review  
Submitted Spring, 2009

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\_\_\_\_\_ Date: Sept 1, 2009  
President's Advisory Council Level III Committee

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## **Executive Summary**

### *Introduction:*

The results of this review will be brought forward to Level II and Level III committees through the shared governance process, ultimately culminating in the District Strategic Plan. This text is the Annual Program Review for the Information Technology (IT) Department at the College of the Siskiyous. The overall purpose of this program review is to evaluate the services provided by the IT Department to the College of the Siskiyous students, faculty, and staff.

### *Document Overview:*

**Section I** of the text begins with an overview of the IT Department. The IT Department has a staff of 18 permanent positions working under the V.P., Administrative & Information Services. The IT staff operates on 2 campuses within Siskiyou County, in the cities of Weed and Yreka. There are 37 buildings on the Weed Campus, and 5 on the Yreka campus, the IT Department is responsible for providing technology and related support to all buildings on both campuses.

**Section II** of the text is the Program Review Report. In this section, the strengths, weaknesses, opportunities, and challenges for the Department are listed. Also listed in this section are the different elements of planning related to the IT mission as well as information on projects, IT budgeting, current staffing, and the various services provided by the Department.

**Section III** of the text is the Needs Assessment for the IT Department. Listed categorically in this section are resources needed in the areas of human resources, training, research, software, equipment, and other needs.

**Section IV** is the conclusion and supporting data for this document.

**Section V** includes attachments which support or provide greater detail for items from within the report itself, including a comprehensive list of Action Plans developed as a result of this study and which will guide the necessary follow-through to implement this study's findings.

## **Section I: IT Department Overview**

**General Description of the Department:** The IT Department has a staff of 18 permanent employees. On the Weed campus, Information Technology Department is located in the Learning Resources Building at LRC 6. The doors of the IT Department are unlocked from 7am – 5pm, Monday through Friday. On the Yreka campus, Information Technology is located in the TC building; the hours of coverage are 7am – 4pm. Weekend and afterhours coverage is available when needed.

**Responsibilities of the Department:** The IT Department is responsible for maintaining and upgrading all technology equipment and infrastructure including: servers, switches, distance learning equipment, routers, telephone equipment, workstations, software, cabling, projectors, and other technology-related equipment. The responsibilities are categorized in several main areas including programming, network administration, distance learning, helpdesk, desktop support and other related support.

The IT Department provides critical services and facilitates the mission of the College. The work performed by the IT Department is necessary to keep all existing technology systems, such as workstations, network shares, email, telephone system, distance learning, wireless internet access and servers operating. Onsite upgrades, scheduled maintenance and repairs are performed on wiring, fiber, workstations, servers, distance learning equipment, networking equipment and other IT equipment. The duties and skills required to perform these highly complex tasks are met with pride and dedication by the IT staff. The IT staff provides access to technology-related equipment and services with very little unscheduled downtime. This aspect of the Department enables the college to achieve its central goals in teaching and achieving Student Learning Outcomes (SLOs).

**Progress Since Last Program Review:** This is the first year that the IT Department has performed a comprehensive program review. However, the IT Department has made many improvements to the Department and the District in recent years. Attachment 1 will provide a partial listing of improvements and completed projects.

## **Section II: Program Review Report**

### **Strengths, Weaknesses, Opportunities, and Challenges**

**Strengths:** The greatest strength of the IT Department is the skilled, dedicated, hardworking staff. The IT staff has absolute commitment to approach every task, project and issue with determination and perseverance. This staff has proven itself many times when faced with adversity such as systems being down, deadlines approaching and frustrated users. The collective skill set of the IT staff is very impressive with many IT staff members holding higher IT-related degrees and/or IT certifications. Most members of the IT staff have 5 or more years experience in IT with most of that collective experience being in higher education. Members of the IT staff continue to hone their skills through continuing education, training and pursuit of technology certifications. The core mission value of “students first” is prevalent amongst the IT staff.

Additionally, 2 members of the IT staff are adjunct Computer Science instructors. This allows the IT Department the ability to have insight into IT-related issues from the perspective of the instructors and students. Communications between the entire IT staff and other District staff, instructors and students is an IT Departmental strength as evidenced by a recently completed survey (See Attachment 2).

**Weaknesses:** The staff of the IT Department is committed to do their best to serve the students, faculty and staff of the District with the resources they are provided. However, some areas have been self-identified as having the potential for improvement. The areas that have a potential for improvement include intradepartmental communications, clearly-defined processes, documentation, and security issues.

*Intra-Departmental communications:* The structure within the IT Department has some separation of duties between Yreka campus IT staff, programmers, distance learning staff and the rest of the IT staff. At times it is as if separate departments are working within the same department. It is imperative that the communications within the department stay consistently functional in order to address the core missions.

*Proactive Management of Information Technology Processes:* The level of technology presently supported by the IT Department can be daunting at times. In order to adequately stay abreast of the ever-advancing technologies the IT Department must implement a proactive approach to planning, change control and processes. The book “The Visible Ops” describes an IT Department Maturity Spectrum as ranging from “Fire Fighting” to “Innovation”. The College of the Siskiyous IT Department is somewhere between these two extremes, but must continue to strive toward the goal of stability and innovation. In order to achieve that goal a method of process control and standardization must be adhered to.

*Security:* The lack of physical security for many of the Intermediate Distribution Frames (IDF) is one of the biggest vulnerabilities facing the IT Department and therefore the District. Every building on campus has at least one IDF located in or nearby. Most

IDFs house one or two Cisco high-availability switches, cabling and fiber. The lack of physical security to some of these IDFs has and will continue to cause downtime to the network segments that they serve. As an example when the IT department has had to share a network closet with maintenance or other departments, network equipment can be damaged causing downtime. Another physical security task will be to disable all unused data ports. The best case scenario would be to have all IDFs located in locked, not-shared closets.

Additionally, network access rights and other IT-related access will be audited for areas of vulnerability. Network share and other access rights will be set to a very granular level. The goal is to give every user enough rights and privileges to do their job, but to not grant access rights that are not necessary.

**Opportunities:** The following areas have been identified as opportunities to improve processes management, proactive planning, communication, and become more mission oriented.

*Improving intra-department communications:* It is important that staff meetings are held at least once per month that include all members of technology services. While smaller, more focused meetings can occur with greater frequency, an all-department meeting including programmers, technicians, netadmins, director and other support staff should occur every month. Agenda items for these monthly meetings can include process control, security issues and clearly-defined roles of support.

*Standardization and Proactive Planning:* It is the goal of the IT Department to stay out the “Fire Fighting” phase and be in the “Innovation” phase in the previously-discussed Maturity Spectrum. It is imperative to use some process standardization and proactive planning. The National Institute of Standards and Technology (NIST) encourage state, local and tribal governments to use their standardized guidelines when appropriate.

Below is a link to the NIST website:

<http://www.nist.gov/index.html>

By working to adopt these standards, the IT Department will accomplish several goals including showing due diligence in case of an external security audit, establish goals for continual improvement, and establish a level of standardization.

The ongoing proactive planning process should include input from all functional areas within the IT Department and other non-departmental stakeholders. The planning process should be a regular agenda items for staff meetings.

*Becoming More Mission focused:* As part of the IT Strategic Plan, the IT Department will formally document a mission statement, develop a vision of the future, develop a set of values and develop long, as well as short-range goals. The IT Department has identified the need to have a system of better tracking helpdesk requests.

By upgrading the helpdesk solution, the ability to use associated reporting tools will aid in the planning process will be greatly enhanced.

**Challenges:** The most difficult challenge facing the IT Department is budgetary and, to a lesser extent, staffing issues.

*Budgeting:* It will not be possible to sustain the level of service that the IT Department provides to the District with the current budget. The annual fixed software licensing costs to the IT Department (excluding Banner-related software) is \$50,000 per year. Printer expenses including maintenance kits, paper and toner cost the IT Department another \$15,000 per year. It will cost approximately \$200,000 per year to adhere to a four year computer replacement cycle. These, and other, ongoing fixed expenses are only partially addressed in the present budget.

*Staffing:* There are several staff members who are scheduled to retire during the next calendar year. This flux in staffing may have adverse effects on overall productivity. While much of this will be addressed after staff members retire and those positions are filled, there will be learning curves and staffing voids to be addressed. One area of concern is the Yreka campus. As the nursing program moves to Yreka the level of IT support needs will increase for that campus. Due to the current budget crisis IT will not be able to fill two open Technician positions.

## **Planning**

*Introduction:* The IT Department is committed to establishing and adhering to proactive planning and customer service. A recently completed customer satisfaction survey (see attachment 2) indicates that the IT Department is performing well in most areas. However, there are areas of customer service that can be improved in the future with proper proactive planning methodology in areas such as process control and maintenance routines.

*Areas to be addressed with Proactive Planning:*

- Network Access Account creation steps
- Grids of support establishing primary and backup roles for all critical functions
- Scheduled maintenance on all IT equipment
- Automated monitoring of IT equipment
- Virtualization of servers
- Thin-clients for labs
- Replacement cycles for IT equipment
- Resource control and management

*IT Strategic Plan:* Developing a strategic master plan is of very high importance to the leaders of IT Department. This strategic plan will serve as a roadmap into the

future for the IT Department. The IT Department will support the District by being directly related to the core missions and goal of the District master plan.

**Budget**

*Annual:* As previously discussed in the document under the “Challenges” section, the annual budgeting process to support the IT Department falls short of the realistic needs of the Department, therefore the District. Shortfalls will occur in many areas including printer supplies, annual licensing fees and upgrades.

*Equipment Replacement:* The IT Department is responsible for maintaining and upgrading all technology-related equipment owned by the District. The expected usable life for workstations and servers is 3-5 years. Printers and networking devices should last 7-9 years. Some of the replacement expenses can be controlled with a proactive plan of server virtualization and thin clients for lab environments. Videoconferencing endpoints and network devices have an expected life of 4-6 years.

Below is a breakdown of the general fund IT budget lines for fiscal year 09-10 (4100 and above):

<b>A11-03-2-4100-000000-000</b>	<b>Budget - Supplies (Instr)</b>	<b>8608</b>
<b>A11-03-2-4200-000000-000</b>	<b>Budget - Supplies (Noninstr)</b>	<b>22773</b>
<b>A11-03-3-5100-000000-000</b>	<b>Budget-Pers and Consultant</b>	<b>60285</b>
<b>A11-03-3-5200-000000-000</b>	<b>Budget-Travel and Conference</b>	<b>5000</b>
<b>A11-03-3-5600-000000-000</b>	<b>Budget-Rent/Lease/Maint/Repair</b>	<b>260</b>
<b>A11-03-4-6400-000000-000</b>	<b>Budget - Equipment</b>	<b>10000</b>

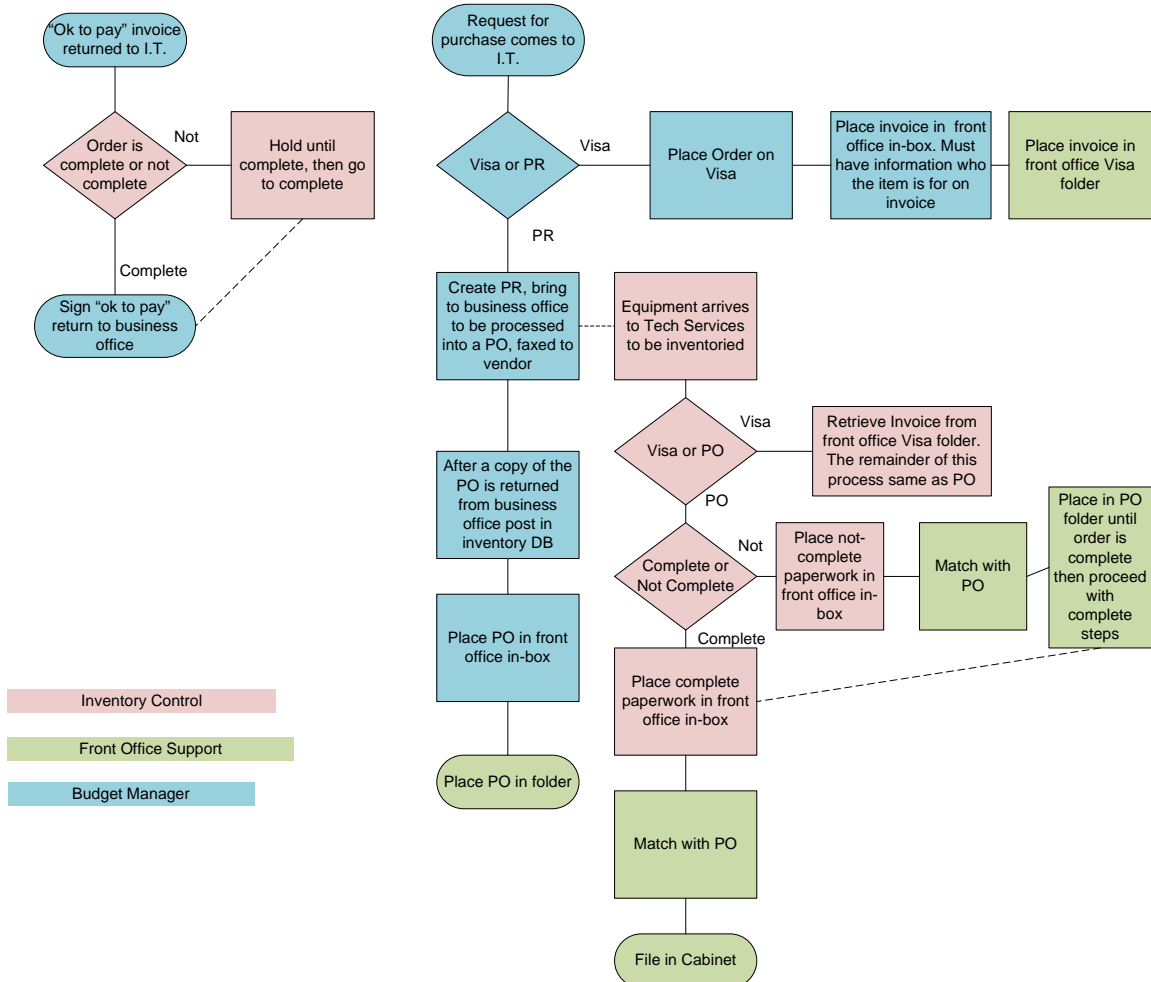
- 4100 = Supplies such as printer toner
- 4200 = Supplies such as server parts
- 5100 = Software licensing and consulting
- 5200 = Training and travel
- 5600 = Leases and repairs
- 6400 = Equipment such as network upgrades

Note: There is no budget line for computer/server replacement.

## Purchasing

The IT Department is a high-volume purchasing entity. There is a purchasing function in place where all District-owned technology equipment must first be reviewed by the IT Department, whether purchased by the IT Department or other District Departments. If the purchase request is less than \$10,000 a sole purchase source can be used. If the purchase request is greater than \$10,000 but less than \$74,000\*, three bids or quotes are required. For purchase requests above \$74,000\* a Request for Proposal (RFP) and Board approval is required.

### Purchasing Process for I.T. department

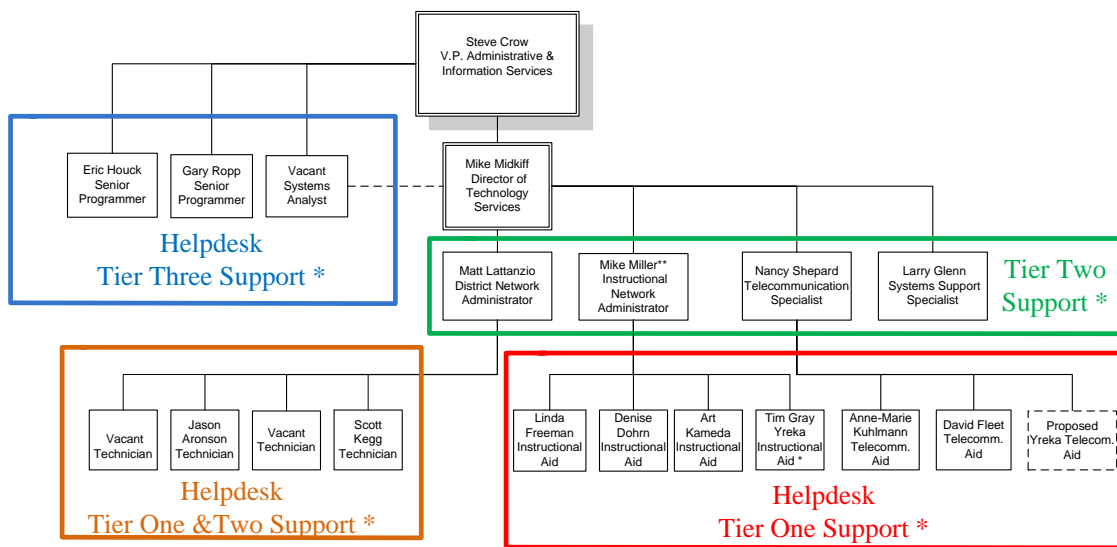


\* The IT Department follows Public Contract Code (PCC) which is adjusted each year. Currently it is \$74k for equipment.

## Current Staffing and Organizational Structure

*Staffing:* The staff includes 3 Telecommunications Aids that are supervised by the Telecommunications Specialist, 4 Instructional Aids that are supervised by the Instructional Network Administrator, 4 Information Systems Technician IIs and a Systems Support Specialist. The Director of Information Technology supervises all of the above mentioned positions. In addition, there are 2 Senior Programmers and 1 Systems Analyst. All above-mentioned positions work under The Vice President of Administrative & Information Services.

### Technology Services Organizational Chart (Effective 8/1/09)



\* HelpDesk Requests are processed through tiers one, two, three, and escalated as needed

\*\* Mike Miller is scheduled to retire 12/31/09

Revised 9/8/09 v. 19

## **Programs and Services:**

*IT Services Provided:* Services provided by the IT Department fall into 4 major categories: programming services, staff/faculty computer & networking services, student computer & networking services and distance learning services.

*Programming Services:* The IT programming services provides support for the present Access/ SQL server database system. The programming staff is also responsible for MIS reporting and other submissions. Programming services will be responsible for the new Banner ERP system. Programming services is also directly involved in web development and enhancement.

*Staff/Faculty Computer & Networking Services:* One of the primary functions of the IT Department is to provide computer and networking services to the Staff and Faculty of the District. Every full-and part-time District employee is provided with a workstation, email, telephone, printer access and network access. Adjunct instructors are not provided with a workstation; however, they do have a dedicated area in DLC 2 with 5 workstations and a printer available. Instructors and salary-exempt employees are provided with VPN accesses which also access to network shares from remote locations.

*Student Computer & Networking Services:* The IT Department provides workstation access to students in 6 labs on the Weed campus and 1 lab on the Yreka campus. These labs provide access to Macs, PCs and printing. All registered students are provided with email accounts, network access, data storage space and internet access. Students enrolled in web instruction classes also are provided with web data storage areas. The IT Department has responsibility to assist installing and maintaining instructional software as well as provide support in computer labs.

*Distance Learning Services:* The distance learning function encompasses two distinct modes, online learning and videoconferenced courses. Online courses are run almost entirely through the Etudes course management system. This is hosted from and supported by Foothill College, reducing on-campus support to: payment of a yearly subscription fee; support of a part-time Online Learning Coordinator; and occasional support from the local network administrators. The College supports 5 videoconferencing classrooms on the Weed and Yreka campuses, with 2 more planned for the Yreka campus. It also substantially supports 8 video classrooms at various Siskiyou County high schools. Staffing for this support is handled by: a Telecommunications Specialist, 2 part-time Instructional Support Specialists, and the District's network support staff on both campuses. Other budget needs for this area include: maintenance contracts for all supported endpoints; equipment replacement costs; and small amounts for travel/ training and supplies.

### **Section III: Needs Assessment**

*Human Resource Needs:* In order for the IT Department to better meet the needs of the District, we propose that the District hire and/or modify the following positions over the current and next three years as follows

Year One (Current Year, 2008 – 2009 Budget Year)

1. \*\*\* NO ACTIONS REQUESTED\*\*\*
2. \*\*\* USE EXISTING STAFF\*\*\*

Year Two (2009 – 2010 Budget Year)

1. Interim assignment of Director of Technology Services to be staffed permanently
2. Interim assignment of Systems Support Specialist in Yreka to be staffed permanently
3. Fill Systems Analyst position

Year Three (2010 – 2011 Budget Year)

1. Add additional full-and part-time Instructional Aides (Weed and Yreka Campus)

*Discussion of Human Resource Needs:* In consideration of the continuing demands of advancing technologies, it is important that the IT Department take a proactive approach towards staffing needs. There are a number of scheduled retirements in the next two fiscal years and most of those positions will need to be refilled. Not only does the IT Department need to be adequately staffed, the staff in place needs to be adequately trained. With the decision to go to a new ERP system (Banner), the skill sets needed for the IT Department also increased.

*Programming Services Needs:*

1. Continual staff training on Oracle, Banner and other related technologies
2. Attendance of annual appropriate professional conference(s)
3. Improve communication with IT staff, working with the department director to request resources, including human resources
4. Establish a formal change control methodology to insure accountability and tracking including:
  - a. Access accounts in Banner
  - b. Proper notification to others when changing passwords
  - c. Notification to campus when making global changes to systems

*Programming Services Needs:* The programming services area will establish and adhere to a formalized system of change control. Because of the organizational structure of the IT Department, the programming services area is sometimes considered a department within a department. It is still important to use the structure in place and centralize requests for resources, material and human, with the director of the department.

Because of the continual advances in technologies and the decision to go with the Banner ERP system, it is very important that adequate training is provided. The attendance at professional conferences, including Banner summit, is important to keep the programming staff abreast of industry advances.

*Student, Staff, Faculty Computer & Networking Needs:*

1. Continual staff training on Microsoft, Cisco and other related technologies
2. Attendance of annual appropriate professional conference
3. Improve communication with IT staff, working with the department director to request resources, including human resources
4. Establish a formal change control methodology to insure accountability and tracking including:
  - a. Network Access accounts
  - b. Proper notification to others when changing passwords
  - c. Notification to campus when making global changes to systems

The computer & networking services areas must establish and adhere to a formalized system of change control. Because of the continual advances in technologies and the decision to go with the Banner ERP system, it is very important that adequate training is provided. The IT Department must also stay current, with planned training, in supported technologies including Microsoft, Cisco, UNIX and others. It is important that the director of the department attend the annual CISOA conference as part of IT collaboration between other Community Colleges within the state of California.

*Distance Learning Needs*

- Continue to investigate new technologies that can be used to deliver COS courses, course material, or services to students at a distance from campus locations. Investigate additional integration with new VoIP system.
- Coordinate distance learning scheduling with Department chairs and deans to move away from offering scattered courses and toward offering complete programs that can be taken by distant students.
- Investigate and institute capture methods for courses and meetings that require “recording” for later playback.
- Develop coordinated campus approach to marketing courses and programs to potential students in and beyond Siskiyou County.
- Identify support services that are not provided substantially at the same level as the same services on campus. Work with the areas that provide these services to narrow the on-campus/distant student gap.

*Online Course Needs*

- Ensure sufficient budget for online course management subscription and local support (shared between Instruction and IT).
- Evaluate course management software to ensure adoption of software that is affordable, easy for students to use, and well-supported (ongoing).

### Videoconferencing Needs

- Build equipment replacement schedule that will ensure sufficient funding to replace equipment as it becomes obsolete.
- Plan for class coverage and tech support for the Yreka campus that will provide classroom support for existing video classes and provision for classes and other conferencing that will be added with the new building (RHSI).
- Ensure sufficient technical support and software upgrades for high school sites to which COS offers video courses.
- Bring new high school sites online as courses are needed at those sites, ensuring sufficient equipment, maintenance, and staffing as sites are brought online.
- Reevaluate approach to determine which and how many courses are videoconferenced to each site. Budget issues may prevent courses being sent to sites with low enrollments in individual classes.
- Incorporate remote site staff wages into the District budget as TTIP funding diminishes or is cut entirely.
- Write and update beginning-of-semester presentation for students, staff, and instructors on video classroom technology, classroom procedures, participant expectations, etc.

### Classroom Technology Needs

- Continue to incorporate standard equipment and instructor interfaces in technology classrooms.
- Move toward an environment where all appropriate classroom technology can be accessed and/or controlled through a network interface (video codecs, Crestron processors, video MCU, projector control, etc.).

### Web Needs

- Move toward more self-sufficiency for instructors and support staff in maintaining their web pages.
- Continue to explore web access to appropriate information for faculty, staff and students through the new Banner system/Luminis portal and how best to coordinate that material with public web pages and documents.
- Complete move to new website design and structure, incorporating reasonable web guidelines, appropriate access by web contributors, and page coding that will allow for easier site updates (CSS).
- Provide training for faculty and staff using web tools to create and maintain their web-based materials.

*Research Needs:*

1. Feasibility study for virtualization of servers and thin-client workstations within the District
2. Feasibility study of collaboration opportunities between COS IT Department and outside agencies or other Districts.
3. Feasibility study of the impact on IT of a ‘compressed calendar’ for instruction
4. Feasibility study of various staffing options such as rotating shifts, rotating campus assignments, and weekend coverage.
5. Feasibility study for addressing physical security concerns at each individual IDF.
6. Feasibility study for online UPS system for MDF
7. Feasibility study for a Faculty Resource Center (FRC) which will be part of the personnel helpdesk solution.
8. Research the usage and licensing of Adobe products including Acrobat, Dreamweaver and Contribute.

*Discussion of Research Needs:* A comprehensive analysis of the Districts server and lab-based workstation usage needs to be completed. The potential of hardware, energy usage and other savings needs to be weighed against possible availability issues. Opportunities for collaboration between other Districts and will be researched. Alternatives to traveling for collaboration, such as video-conferencing will be explored.

While the proposal for the compressed calendar was not approved at this time, the IT Department will be proactive in researching and preparing for that future possibility.

*Technical Equipment and Other Resource Needs:* Below is a brief list itemizing the needs of different area within the Department. For the purpose of this discussion the areas have been categorized as servers, networking, workstations, printers, software, distance learning equipment and other. The needs below are for fiscal year 2009-10.

Servers

1. Exchange Email Servers (Replacement)	\$24,000
2. Student Server (Replacement)	\$ 8,000
3. Wadminc1, 2 (Replace with array solution)	\$16,000
4. Wclass (Replace with array solution)	\$16,000
5. Print Server Yreka Campus (Upgrade)	\$ 7,000

Networking Equipment

There no network equipment needs projected for fiscal year 2009-10

Workstations (Based on 4 year replacement cycle)		
1. Staff Computers (70 @ \$1,200)		\$84,000
2. Instructional Computers (80 @ \$1,200)		\$96,000
3. Faculty Computers (30 @ \$1,200)		\$36,000
Printers		
1. MFP Printers (3 @ \$3,500)		\$10,500
2. Printer Supplies		\$15,000
Software – Annual Maintenance Agreements		
1. Ironport Spam-filter (3 year agreement)		\$ 8,700
2. Symantec Enterprise Antivirus		\$ 8,400
3. Cisco Smartnet		\$12,000
4. Verisign SSL		\$ 2,400
5. MicroSoft Campus Agreement		\$19,960
6. Onssi Security Camera		\$ 3,000
7. Veritas backup exec		\$ 3,000
8. Kiosk		\$ 125
9. Overland Backup		\$ 1,700
Distance Learning		
1. Maintenance and Repair		\$24,500
2. Supplies and Materials		\$ 1,500
Other		
1. Helpdesk/Asset control software		\$ 6,000
2. Rack for TV studio Equipment		\$ 2,000

*Marketing and Outreach Needs:*

1. Implement open and transparent communication with the campus community to carefully match needs and expectations with available resources.
2. Develop and distribute an “IT Users Handbook” as a means to foster open and transparent communication with the campus community on expectations and available resources. Included in the “IT Users Handbook” will be the proposed Computer and Network use policy (See Attachment 4)
3. Create other “how to” manuals and documentation for technology-related equipment and services.
4. Complete redevelopment of IT Web page.
5. Implement Comprehensive Customer Survey as an annual event

*Discussion of Marketing and Outreach Needs:* The IT Department will be proactive in their approach to advertise services to the campus. The “IT Users Handbook” will be a “how to” guide designed to help District faculty, staff and students best use available technology resources. The redevelopment of the IT Web page will be done to further advertise and avail technology-related services to the campus stakeholders. The implementation of an annual customer survey will help give the IT Department “point in time feedback” to help measure progress into the future.

#### **Section IV: Conclusion and Supporting Data**

The IT Department will approach this document as a living document for a template of self-evaluation, assessment and improvement. The results of the recently completed survey (See Attachment 2) indicate that the IT Department is doing a very good job in all major categories. However, a mature and functional service department continues to look for areas to improve. The areas that will be reviewed and addressed for potential improvement include intra-department communications, process control, standardization, documentation and other efficiencies.

While College of the Siskiyous is a small community college, the demands on the IT Department is every bit as challenging as bigger schools. In fact, the challenges can be even greater at a small school. In bigger schools there may be more specialization in the IT Department; here each member of the IT team is required to be very proficient in many areas. The dedicated IT staff at College of the Siskiyous approaches this and all challenges with relish. The “can do” spirit that is prevalent amongst the IT Staff is a strength that will be tested in these tough budgetary times. However, there is no doubt that the IT Department will continue to serve the District stakeholders, including students, staff and faculty to the very best of their collective abilities.

Supporting Data:

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Shepard, Nancy. Writing on Distance Learning parts of Program Review. May 2009

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NY: Infinity Publishing, 2002

**Section V: List of Attachments:**

**Page Number:**

Attachment 1: **Physical Resource/Infrastructure improvements (2004 – 2009)**..... A 2

Attachment 2: **IT Department Customer Satisfaction Survey**.....A 5

Attachment 3: **List of Action Plans and Upcoming Projects** .....A 13

Attachment 4: **Computer and Network Use Policy**.....A 14

## **Attachment 1**

### **Physical Resource/Infrastructure improvements within the District (2004-2009)**

#### **Measure A (Bond) Funded Projects:**

##### *Network Edge Devices Upgrades*

Obsolete network devices, including hubs and out-of-date 3com switches were upgraded to high-speed Cisco switches.

##### *PC/Laptop Upgrades*

During the past 3 years, approximately 100 new PCs and Laptops were purchased to replace and upgrade existing equipment. The goal is to maintain a 4-year computer replacement cycle.

##### *Server Upgrades*

From 2004-2009, 15 production servers were upgraded to high-availability rack mount servers. Additionally, 5 Sun servers running Solaris 10 (UNIX) operating system were purchased for the new ERP System (Banner) implementation.

##### *Fiber Plant Upgrade*

The existing COS fiber plant was upgraded in a three-phased project. This project represented an end-to-end fiber replacement and refurbishing for the Weed campus. The work has a 25-year material warranty.

##### *New Telephone (VoIP) System*

The old analog telephone system was no longer supported and was updated to a fully digital VoIP Telephone system. This new telephone system included over 350 Cisco handsets, call manager server, enhanced emergency broadcast system and a digital fax solution. The annual maintenance agreement for this new telephone system is included in the Cisco Smartnet agreement.

##### *Network Schema Reconfiguration*

The network schema was reconfigured to make a VLAN for every physical (building) segment. VLANs were also created for printers, WiFi, and other connections. The network was reconfigured from one flat broadcast domain into VLANs thus adhering to networking best practices. This work greatly enhanced network security and functionality.

##### *Core Network Devices Upgrades*

All core networking devices were upgraded including routers on both campuses, ASA devices replace the PIX firewalls, and the 4506 core switch was upgraded to a new supervisor engine with redundant power supplies.

### *Network Security Upgrade*

Network security has been enhanced with the implementation of a Data Management Zone (DMZ). The DMZ is a logical subnetwork that contains and exposes the District external services to the Internet. The purpose of a DMZ is to add an additional layer of security to the District Local Area Network (LAN); an external attacker only has access to equipment in the DMZ, rather than the whole of the network. The services within the DMZ include web and email services.

### *New Building Technology*

The IT Department has been heavily involved in the planning and design of the network infrastructure for bond-funded new building projects.

### *Wireless Infrastructure*

The IT Department has installed and configured high-speed wireless access throughout most of the Weed and Yreka campuses. In the past two years 37 Cisco Access Points (APs) have been installed on both campuses.

### *Video Equipment Upgrades*

All video endpoints in the system have been migrated from ISDN to IP. A new Codian video MCU (bridge) and scheduling system was installed. The Weed and Yreka classroom codecs have been upgraded. Additionally, videoconferencing has been added to an Yreka classroom. DLC and ESTC video endpoints have been registered with CENIC. The videoconferencing network has been built out to additional Siskiyou County high schools including Butte Valley (Dorris), Dunsuir, McCloud, Mt. Shasta and Weed. In addition to bond and District funds, a 4-year grant from Morgan Siskiyous in the amount of \$25,000 was used for these upgrades.

### *Printer Upgrades*

In the past two years most old, out-of-warranty, networked printers have been upgraded to high-end HP printers. Where possible, multifunction printers (MFP) have been implemented, providing printing, faxing and scanning through a single networked device.

## **District Funded Projects:**

### *Email Spam Filter Upgrade*

The software based District email spam filter was upgraded from a software-based solution to a hardware-based solution. The Ironport spam filter solution consistently detects and stops 98 -99% of all incoming spam before it hits the Exchange email servers. Before this anti-spam solution was implemented, the volume of spam making it to end users' inboxes was causing work slowdown issues and increasing virus exposure risks.

### *Weed-to-Yreka WAN Infrastructure Upgrade*

The infrastructure between the Weed and Yreka campus was upgraded from three T-1 lines to a single DS3 line. This upgrade provides approximately 28 times additional bandwidth between the two campuses.

### *Website Upgrades*

District website was reworked to make use of a consistent template for all departmental pages. Student web portal has been developed. A major web remodel is in progress.

### **ERP (Banner) Project:**

After a lengthy evaluation it was decided that the District had to enhance its efforts in the following areas:

- Administrative support for instruction
- Streamlined business processes
- Improved services for students, faculty and staff
- Greater access to important resources
- Improved productivity through the use of web-enabled applications
- Responsiveness to state/federal/internal reporting requirements
- Efficient access to data, information and transaction processing

After completing the Request for Vendor Bids (RFB) process and Board approval a contract was awarded to SunGard Higher Education. Their proprietary product, Banner, was chosen to upgrade the present SIS, financial aid, finance and human resources data systems. This is projected to be an 18-24 month project. As of this writing the following has been completed by the IT Department.

1. Installed and configured 5 servers and additional storage
2. Installed and configured UNIX operating system (Solaris 10)
3. Installed Oracle database
4. Installed and configured test Luminis environment
5. Installed base installs for Banner Modules
6. Completed UNIX training – (5 members of I.T. Department)
7. Completed Luminis admin training – (2 members of I.T. Department)

Several funding sources including Measure A Bond, District and Title III are being used for this project.

**Attachment 2**  
**IT Department Customer Satisfaction Survey**  
**Administered March 2009**

Below are the results of the IT Department customer satisfaction survey administered in March 2009. There were 110 total responses to this 10 question survey.

1. My relationship to the College of the Siskiyous is

**Response %      Response #**

Faculty	34.5%	38
<b>Staff</b>	<b>60.9%</b>	<b>67</b>
Student	1.8%	2
Community	0.9%	1
Other	1.8%	2

2. My request(s) for IT services was handled promptly

**Response %      Response #**

Exceeded Expectations	39.1%	43
<b>Met Expectations</b>	<b>51.8%</b>	<b>57</b>
Needs Improvement	9.1%	10

3. My request(s) for IT services was handled in a courteous manner

**Response %      Response #**

<b>Exceeded Expectations</b>	<b>49.5%</b>	<b>54</b>
Met Expectations	45.0%	49
Needs Improvement	5.5%	6

4. When I call the IT Department on the phone, the person answering the phone is professional, courteous and knowledgeable

**Response %      Response #**

Exceeded Expectations	30.9%	34
<b>Met Expectations</b>	<b>52.7%</b>	<b>58</b>
Needs Improvement	9.1%	10
Not Applicable	7.3%	8

5. The helpdesk software used by the IT Department is “user friendly”

**Response %      Response #**

Exceeded Expectations	5.7%	6
<b>Met Expectations</b>	<b>65.1%</b>	<b>69</b>
Needs Improvement	20.8%	22
Not Applicable	8.5%	9

6. The IT Department worked to completely accomplish my request

**Response %      Response #**

Exceeded Expectations	40.7%	44
<b>Met Expectations</b>	<b>50.0%</b>	<b>54</b>
Needs Improvement	8.3%	9
Not Applicable	0.9%	1

7. I am able to accomplish my work with very little interruption due to IT equipment failures

**Response %      Response #**

Exceeded Expectations	44.3%	47
<b>Met Expectations</b>	<b>46.2%</b>	<b>49</b>
Needs Improvement	7.5%	8
Not Applicable	1.9%	2

8. The equipment provided by the IT Department on a check-out basis, including laptop computers, digital cameras and clickers, meet my expectations and goals

**Response %      Response #**

Exceeded Expectations	8.4%	9
Met Expectations	27.1%	29
Needs Improvement	6.5%	7
<b>Not Applicable</b>	<b>57.9%</b>	<b>62</b>

9. The Distance Learning services provided by the IT Department meet my expectations and goals

**Response %      Response #**

Exceeded Expectations	12.0%	13
Met Expectations	24.1%	26
Needs Improvement	3.7%	4
<b>Not Applicable</b>	<b>60.2%</b>	<b>65</b>

#### 10. Please provide addition feedback (51 Responses)

1. I have worked at several other colleges and this by far the best I.T. Department I have dealt with.
2. I suspect that tech services is just really a 'boy thing' and that it will take ongoing 'training' to convince the staff that middle aged women--or anyone else who does not fit the stereotype of technically literate human beings--are not stupid and that they may indeed be experiencing legitimate technical difficulties. I sincerely appreciate the support that I HAVE gotten, especially from ("Name") in setting up VPN and ("Name") in regard to a myriad of technical glitches. However, I am confused by lack of response to simple requests... Thanks for asking.
3. Tech services really has become "faculty user friendly" over the past several years. Keep up the good work.
4. Generally doing a good job. Some limitations in equipment or ability to work around some of the school's odd infrastructure could be improved, but may be beyond Tech services area of responsibility
5. More regarding video-conferencing equipment. Just as I would like the content to be continually available to far end students without interference from changing camera angles, I would like the content on the near end to remain on screen without interference from changing camera angles. On the near end, it is not necessary to project the camera views of the instructor or of the near-end class. The preview screen on the Crestron panel takes care of that.
6. Good work done by good people, many thanks!
7. no comments at this time - your doing just great - thank you.
8. It is always pleasure working with this Department, no request is treated as trivial. This is a turn-around from the past. Good work Technology Services!
9. My computer cannot handle Office 2007. I took the WORD 2007 training, had it installed, but had to have it removed. A request for a newer computer was made in April and I understand that replacement may be available from the Greenshields hall computer lab after the first of the year.
10. As I mentioned on question #4 things have improved greatly. The person answering the phone is always polite and if they don't know the answer to question they find someone who does. You people do a wonderful job and should be applauded for all of your hard work. The only small critique I have is that you should advertise your services a little more.
11. Keep up the great work!
12. You guys rock! Keep up the good work. Thank you for making our life's easier
13. I am overall happy with tech services- there is a "can-do" attitude. I have had positive experiences. Only one concern-How much access and or information is shared with workstudy students?
14. Thank you for your continued, prompt handling of my IT needs

15. Thank you for all your help this semester.
16. I think overall tech services has GREATLY improved in the last couple of years. The only complaints is the technology itself, not the staff. I really appreciate all they do. Anytime I have had a problem this year, they have fixed it in minutes...wow!! Way to go.
17. I'm not finding the distinction between 'met expectations' and 'exceeded expectations' very helpful, and that's because tech services has created an atmosphere in which the service level is so consistently high that my expectations are high.
18. The Tech Services staff have always been very accommodating and willing to help whenever needed. It has been my experience that they go over and above to see a task through and ensure that the job is done properly. I have every confidence in them that my needs will be met promptly and accurately.
19. If a service call cannot be taken care of within a week or two, it will be nice to have a notice sent to the requestor for an explanation with an estimated time frame for completion.
20. The questionnaire focuses on requests and does not ask questions about general performance. Overall, the Tech Services staff does a great job, and our equipment at COS is up-to-date.
21. Tech services at COS is great. Always knowledgeable and helpful.
22. You need a secretary for that Department.
23. All interactions that I have had with Tech Services have been great. The staff is professional and handle ("Name")ers in a timely fashion.
24. I always feel like my requests are a priority--that's quite a feat considering the number of people whose needs you meet!
25. Most of the guys in tech Services are great and they always make sure everything is working great before they leave our office. We also get them stopping in just to make sure everything is working well for our Department. We really appreciate them!!!
26. I understand the workload on this Department is huge. I am not dissatisfied with the Department. I am however unhappy about the time it takes to respond to "some" of my requests. Many times the Department is right on my request. Some times not. My interactions with the Department staff have always been positive.
27. The "guys on the ground" are prompt, professional, and proficient. I've only had slightly less than exceptional communications with those who are hovering a bit above the ground.
28. I am impressed by how accommodating Tech Services is. They rush over to my office to help me if I have a question or hardware problem. Service continues to get better all the time. I appreciate the timely support given by Tech Services.
29. We are totally dependent on the service provided by COS IT and they have never let us down. I have worked at three other community colleges; and, by comparison, COS has done the best job for me, my staff and my operation. Keep up the good work.
30. The help I receive from Tech Services is always at a high level. They are knowledgeable and very quick at completing my requests to my satisfaction. And they don't make me feel stupid when it's user error.
31. The crew in Tech Services has always been very quick to respond to the needs in my office. I appreciate their helpfulness and knowledge. Thanks!
32. The entire staff is wonderfully helpful, friendly and always willing to listen to non-technical descriptions of problems and stay with me until they understand what I am trying to say:)
33. (Person commented on need to improve Audio Visual Process).
34. Technology Services is one of the most dependable, professional Departments on campus. Great Job! My only, small critique is to advertise the checkout services so that people are aware of this. Overall an excellent job!
35. I think it would be important to have some sort of backup at night in case there are situations that require immediate technical help.
36. Great attitude!!!!!!
37. The COS Tech staff is first rate. They are prompt and thorough.

38. Provide orientation, as needed, for new or adjunct faculty on the operation of the smart technology classrooms. Provide more training in using software programs. Thoroughly test new programs before they are implemented, i.e. the new curriculum program had a lot of bugs in it (and still does) but it was put into use anyway. This caused a lot of unnecessary frustration and extra work on the part of the users.
39. Technology Services is always helpful and the staff go out of their way to provide services in a timely manner. I think the staff are spread too thin, especially with the new buildings coming on line and all of the special equipment that will need to be maintained.
40. Realizing that you folks have huge amounts of projects to address usually makes me feel that my immediate problem is minor. It may be minor to your Department, but it isn't minor to myself and the duties I am trying to accomplish. Equal understanding of this has made it easier to work together to accomplish what's needed for all involved. Thanks for the many things you all do for us.
41. The guys are great!!
42. Technicians are great! Friendly, competent, and very patient with interruptions.
43. I think we have one of the most helpful and friendly Technology Departments. They are great guys to work with.
44. I have found that when equipment is ordered or sent out for repair, there doesn't seem to be much tracking. I usually have to initiate a follow-up to find out why it is so late. There is a lot of talent in different areas on the Tech Services staff.
45. ("Name") and crew are always helpful ("Name") always stops what he is doing and listens to my issues.
46. ("Name") is awesome. He needs to be promoted or at least given a raise.
47. Much better communication than a few years ago. Good teamwork.
48. I have confidence that tech services will address any issue I have in a reasonable amount of time. The staff is patient and understanding when my lack of tech savvy shows. When I have a request that hasn't been responded to in the timeframe I believe is warranted, a phone call gets immediate response. Great job, overall!
49. Establish point of contact procedure from both Tech Services' end and MCTV end to make efficient use of information and requests. Or, is it OK for MCTV staff to just call a tech staff member to help resolve an issue? In general, it is often not clear to me, as Exec Director for MCTV whether minor problems are a general maintenance issue or a tech services issue. I would like to instruct our station director on how to properly interface with COS staff on problems that arise about facility use or equipment. Thanks for all you do!!!!
50. The tech staff are all great. They never make you feel like you are interrupting them. They are very knowledgeable and more than helpful. They are always prompt and always willing to answer any your questions. We at COS are more than blessed to have the Technology Services staff working for the District.
51. Always friendly and speedy help!

### **Discussion of IT Department customer satisfaction results**

The results of the customer satisfaction survey indicated an overwhelmingly satisfied or positive perception from the campus stakeholders towards the IT Department and the services they provide. Every question had results of approximately 90% either met or exceeded expectations. Only question #5 regarding the helpdesk software had a “needs improvement” results of greater than 10%, in fact the “needs improvement” results for that question was double that of any other question at 20%. Some of the negative comments included the inability to sync with network password and the overall usability. The IT Department plans to research other helpdesk software solutions, partly as a result of these survey results. Even though the overall results of the survey met or exceeded expectations, some individual responses indicate areas that need to be addressed. The IT Department is dedicated to not “rest on their laurels”, but to constantly identify and address areas that can be improved.

### **Attachment 3**

#### **List of Action Plans and Upcoming Projects:**

*Action Plans to be Developed:* Based on the findings of this IT Program Review, various items have been identified throughout the text as needing planned and measurable actions. Listed below are those items, in the form of a list of Action Plans that will be developed as follow-up action for this review. These plans will be developed by the IT Department which will seek approval from the District shared governance process when and where as appropriate.

1. Physical and Logical Security Enhancements
2. IT Strategic Plan
3. Improved Planning Processes
4. Checkout system Improvement
5. Inventory and Asset Control Improvement
6. Improved Communication Process
7. Improved Helpdesk Solution (Software and Personnel)
8. Improved Budget Planning Process
9. IT Web Page Upgrade
10. Improved Documentation Process
11. Develop a computer and network usage policy, such as the proposed usage policy included in this document (See Attachment 4). Once the language for the policy has been agreed upon, within the IT Department, bring it to Technology Council, PAC and finally The Board for approval.

*Proposed IT Projects for fiscal year 2009-10:* The following is a partial project list proposed for the fiscal year 2009-10. As always these proposed projects are dependent on adequate funding and time.

1. Email System Upgrade from Exchange 2003 to Exchange 2008
2. Upgrade Wclass, Web and Student Servers
3. Upgrade and redo Active Directory to adhere to best practices
4. Install viewing monitor outside of MCTV
5. Implement new helpdesk solution (Software and Personnel)
6. Install and configure dedicated print server for the Yreka campus
7. Upgrade Ironport spam filter hardware
8. Develop user guides:
  - a. The emergency broadcast software that is integrated with the VoIP system.
  - b. E-mail how to's
  - c. Network usage
  - d. Helpdesk, checkout and classified.

Attachment 4  
Computer and Network Use Policy

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- I. Introduction
  - II. Rights and Responsibilities
  - III. Right to Privacy
  - IV. Enforcement
- 

I. Introduction

In order to comply with federal and state regulations, laws, and harassment mitigation policies, educational organizations are compelled to establish Internet safety guidelines otherwise known as AUPs – (Acceptable Use Policies) for the appropriate use of computer systems.

II. Rights and Responsibilities

Use of computers, services and networks owned by College of the Siskiyous (COS) is a privilege governed by certain regulations and restrictions as defined by the college as well as all applicable federal, state and local laws.

The user agrees to abide by the regulations set forth in this Acceptable Use Policy (AUP). This means that the user agrees to behave responsibly according to the standards established by COS and this document while using college systems and network resources. Conduct that violates this policy is listed in Appendix A.

**III. Right to Privacy**

COS supports each individual's right for personal communication; however, messages on computing resources are accessible to others through normal system administration activities and to the public through public records laws. Therefore COS cannot guarantee privacy of electronic communication.

The system administrator reserves the right to monitor the usage of all network resources to ensure compliance with this policy, college policy, and federal, state and local laws. User files may be subject to search by law enforcement agencies under court order if such files contain information which may be used as evidence in a court of law.

COS users are expected to comply with copyright and intellectual property laws.

Users who become aware of any violation of this policy should notify the proper authorities. These authorities include the Director of Information Technology, the Vice President of Administrative & Information Services, the Vice President of Student Services, the Vice President of Instruction, and the Office of the President/Superintendent and/or the local police.

## IV. Enforcement

Violations of this policy will be reported to the appropriate administrator and, if warranted, the appropriate civil authorities. Non-compliance with this policy may also result in the loss of access to computer resources.

### Disclaimer:

- Do not leave your personal equipment unprotected. COS is not responsible for damage or theft.
- COS is not responsible for damage to your equipment due to any power problem.
- The District does not service personal computers nor provide technical support on personal devices.

### Acceptable Use

Conduct which is deemed non-acceptable use of COS technology resources includes, but is not limited to the activities in the following list.

- Unauthorized use of a computer account.
- Using the campus network to gain unauthorized access to any computer systems.
- Connecting unauthorized equipment to the campus network.
- Personally owned wireless access point or wireless device acting as an access point for use on campus.
- Unauthorized attempts to circumvent data protection schemes or uncover security loopholes. This includes creating and/or running programs that are designed to identify security loopholes and/or decrypt intentionally secure data.
- Knowingly or carelessly performing an act that will interfere with the normal operation of computers, terminals, peripherals, or networks, e.g., deleting programs or changing icon names.
- Knowingly or carelessly running or installing on any computer system or network, or giving to another user a program intended to damage or to place excessive load on a computer system or network. This includes, but is not limited to, programs known as computer viruses, Trojan Horses, and worms.
- Deliberately wasting/overloading computing resources, such as printing too many copies of a document.
- Violating terms of applicable software licensing agreements or copyright laws.
- Violating copyright laws and their fair use provisions through inappropriate reproduction or dissemination of copyrighted text, images, etc.
- Using college resources for commercial activity, such as creating products or services for sale.
- Using electronic mail to harass or threaten others. This includes sending repeated, unwanted e-mail to another user.
- Initiating or propagating electronic chain letters.
- Inappropriate mass mailing. This includes multiple mailings to newsgroups, mailing lists, or individuals, e.g. "spamming," "flooding," or "bombing."
- Forging the identity of a user or machine in an electronic communication.
- Transmitting or reproducing materials that are slanderous or defamatory in nature or that otherwise violate existing laws or university regulations.
- Attempting to monitor or tamper with another user's electronic communications, or reading, copying, changing, or deleting another user's files or software without the explicit agreement of the owner.
- People need to be aware that transmitting pornographic material may be in violation of federal law.
- People need to be aware that pirating of computer software is in violation of federal law.