

Administrative Unit Review Report

Admin AUR - Technology Services and Broadcast Systems

Mission Statement: The mission of the Technology Services department is to provide technical support and solutions that improve student success.

2019

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Would you like to make a presentation of this report to Consultation Council?: No

ADMINISTRATIVE UNIT REVIEW CHECKLIST (Please complete in order)

Make sure that prior years' AUO assessment results/use of results are up-to-date in Improve: Completed

Meet with AUR/AUO Coordinator for orientation: Completed

Establish Administrative Unit Review Team (AURT): Completed

Download the Improve AUO Report for AURs and upload into the document repository: Completed

Request input from faculty, staff, and students, as necessary: Completed

Develop new objectives and action steps for the coming three-year period and input into Nuventive: Completed

SECTION I: SUMMARY REPORT

A. What are the most important contributions of the unit to the college?: The department of Technology Services is responsible for specifying, designing, implementing, installing, and maintaining technology for the entire Saddleback campus.

The term Technology is defined as all computer hardware, software and technology infrastructure essential to the delivery of information (gathering, storing, retrieving, communicating, or displaying) in text, image, or digitized form. Technology includes both academic and administrative computing systems as well as related software, instructional delivery systems (multimedia, data and video distribution), communications links, telephone systems, and all integrated systems and software which support the above.

The Technology Services department provides the following services:

- o Data Network Administration
 - Routers
 - Firewalls
 - Network Switches
 - Wired infrastructure
 - Wireless Access Points
 - Security
- o Desktop Computers
 - Faculty, Staff and Administrative Computers
 - Instructional Computer Labs
 - Classrooms
 - Open Access/General Use Computers
- o Telephones
 - Adds, Moves and Changes
 - Call Handlers/Phone Trees
 - Voicemail
 - Fax Lines
- o Software Support
 - End User Support and Training
 - District Application Support

- College Specific Software Installation and Support
- o Data Storage
- College Data Storage
- Data Backup
- From data inception to deletion (C2G)
- o Server Administration
- Instructional Servers
- Administrative Servers
- o Web Administration
- Manage College Web Servers
- Design and Update College Web Site
- Web Applications
- o College SharePoint Services
- Manage College SharePoint Servers
- o Classroom Media Support
- Equipment Maintenance
- Equipment Installation
- Trouble shooting
- o Outdoor Media Systems
- System Maintenance
- System Operation
- o Media Services
- Video Duplication

B.1 Since the last AUR, how have AUO results been used to make changes to the unit?: A new service desk software, Ivanti, was purchased to improve the customer service experience for all constituents. This was in line with our goal to improve customer service and provide first-class customer service to all our constituents.

The wireless network was not keeping up with the demands of our constituents especially students and faculty. One of the outcomes was to improve our wireless coverage in all the interior areas of the college. I successfully expanded the wireless coverage in all interior areas of the college. The wireless was deployed with the latest wireless technology known as wave 2 technology. Wave 2 provides bigger bandwidth and the ability for one access point to connect more devices whilst keeping up with the demands of the college.

The college's funding request process has been a hybrid manual and software driven process. The process has been a point of frustration for many of our employees and those submitting requests. With the VP of Administrative Services as the executive sponsor, we embarked on automating the software by creating a web-based application called Budget Resource And Institutional Needs (BRAIN). This endeavor was meant to make it easier for the submitter to submit their request, for committee(s) to review the requests, for reporting, and to keep historical perspectives. It was unsuccessful in its launch in the year 2018 due to tight timelines and last minute changes to the software. In 2019, we are trying again to launch this program to assist in our funding request process.

All computer hardware requires a refresh every four years to keep up with the demands of the college and new technology especially software. My department continues to keep up with the demands of our planning documents to refresh the hardware every four years. We successfully executed the hardware refresh in the summer 2019.

B.2 What has been the impact of those changes on the unit?: The unit has seen efficiency improved in our all work orders submitted to our department. The new IT service management software, Ivanti, has provided combined our inventory management system with our service request system; thereby, giving our technicians more visibility into our hardware systems and the ability to troubleshoot problems from one console and one location.

The impact of wireless to all interior locations has created the ability for our professors to use mobile technologies as opposed to hardware solutions that would have been more expensive due to cabling requirements.

The computer hardware upgrades have made it easier for my technical team to support the over 3,000 computer devices out on campus. Since the computers are newer, the hardware can keep up with the demands of the software, do not break as often, and has warranty and support from the manufacturer. This, in turn, has released my team to focus on the many other areas of support the college requires.

C.1 Did the unit achieve its objectives from the last AUR?: Yes, my department achieved its objectives from the last

administrative unit review.

C.2 What has been the impact of those achievements on the unit?: The impact of those achievements were:

1. Increase efficiencies in the way we handle incidents and service requests leading to faster responses to service requests and improved customer satisfaction.
2. Ability for my team to enhance our customer service and take additional projects without additional staff
3. Reduce the number of wireless technical support calls because the wireless system has been upgraded

D. List the top three objectives for the coming three years:: 1. Ensure funding and resources are available to implement the college's technology refresh cycles as outlined in the planning documents

2. Provide first-class IT customer service support for faculty, students, and administrators in the effective use of technology and technology systems related to its programs, services, and institutional operations

3. All college technology infrastructure, hardware, and software will have adequate capacity to support the institution's mission, operations, programs and services

SECTION II: UNIT OVERVIEW

A. What is the mission statement of the unit?: Technology Services designs, implements, and maintains excellent infrastructure, provides first-class customer service and support, and infuses innovative technology to serve the needs of students, faculty, and staff while enhancing the student learning environment that is conducive to student success.

B. How does the unit's mission support the mission of the college?: Technology Services' mission is congruent and in support of the college's mission. The department works closely with the offices of Instruction, Student Services, and Administrative Services to ensure all institutional information technology needs are addressed. Additionally, the department strives to provide a technologically advanced academic environment that is conducive to serving the needs of our students, faculty, and staff.

C. How does the unit align itself with the current strategic plan of the college, if applicable?: Technology Services perfectly aligns with the strategic goals of the college. The three objectives outlined for the department align with all four strategic college goals but in particular with goal two—enhancing the learning environment—and goal four—integrated planning. Technology Services in combination with the college technology committee develops replacement plans for all hardware, which aligns with the college's goal of integrated planning. Additionally, a five year technology plan was created that aligns with the needs of the college and is updated yearly with input from the college technology committee. Ensuring all infrastructure and technology have adequate capacity to meet the needs of the college aligns with the college's goal of enhancing the learning environment. Technology Services continuously strives to upgrade the technological systems that serve the college to provide a welcoming learning environment that is conducive to student success.

D. What are the unique challenges and opportunities of the unit?: The department faces a variety of challenges but they are not insurmountable. The primary challenge is the lack of proper staffing levels for a large college such as Saddleback. A few years back, the State Chancellor's Office hired Gartner to develop a staffing model for community college IT departments. Based on this staffing model and accounting for the systems supported by District IT, the department has a deficit of 17 technical positions (Figure 1). This directly affects the amount of response time, level of project support and management, number of projects that can be properly managed, and the administrative work output. Technology continues to grow exponentially both in hardware and software needs. The department struggles to keep up with all the projects and instructional computer labs on campus. The recent addition of access control with nearly 1,000 doors added a high volume of work at the network level—additional switches, software—all rights and access cards, and training and maintenance. Additionally, the department has very limited funding to pay for overtime and this creates a challenge when trying to meet timelines and deadlines with limited staffing.

The department is in the dire need of a formal data center. The currently facility is not conducive to work as a data center. Its floor layout and lack of formal amenities required for a data center are missing. A recent report from Plannet reconfirmed what I have stated. The risk for the college is high as we continue to operate in a subpar room location with very, very important equipment that houses very valuable institutional systems and data.

Another challenge is the lack of space to conduct hardware refresh projects. While we are currently using an old vacated building, this building will undergo a rebuilt in the next year and will not be available. The department will lack a proper place for hardware deployment.

One other challenge is the reliability on BAARC funding to fund our planned replacement cycles. If BAARC funding were to go away some day, Technology Services would not have the funds to fund the replacement cycles. However, BAARC funding is also an opportunity that can assist the college in funding technologies such as customer relationship management, scheduling software, and other technologies that can lead to efficiencies.

College technology is faced with numerous opportunities in the form of virtual desktop systems, lower costs in hard drive and RAM, internal and external cloud computing, collaborative software, wireless mobility, mobile apps, predictive analytics, touch screens, way finding, lower storage price points, smarter systems, etc. We are just beginning to explore the use of virtual desktops and are currently in the process of assessing future expansion of these systems. The college's new SharePoint

deployment has the potential for group collaboration, document sharing and numerous other functionalities and services. Cloud technologies can also alleviate the support for systems and infrastructure. The department plans on adding functionalities to SharePoint by fielding requests from departments as well as automating more campus' processes.

Collaborative learning spaces is also another opportunity where the proper design of an instructional space can be converted to teach in any modality fitting the instructional needs. This can increase the efficient use of space and produce a higher ROI on the technology investment.

E. Did the unit receive any funding for requested resources since the last AUR?: Yes

F. If funding was received, how did these resources result in unit improvement?: The additional resources were extremely valuable by allowing the department to maintain the additional instructional computer labs created since the last AUR. Also, there has been more technology added to the campus and the additional technical staff have been instrumental in supporting this new technologies.

SECTION III: UNIT EVALUATION AND NEEDS ASSESSMENT

A.1 Discuss the staffing structure of the unit.: The Technology Services department currently operates with a staff of thirteen active full-time technical staff plus a 50% part-time permanent technician. There are two vacant part-time positions. There is one administrative assistant to handle the high volume of administrative work that needs to be performed from creating requisition to contracts and staff time tracking. An assistant director involved directly in capital construction projects is part of the department. The department director reports to the Vice President of Administrative Services.

Some years ago the State Chancellor's office commissioned the Gartner Group to develop a staffing model for community college departments. Gartner Group developed the Total Cost of Ownership model (TCO). Their model takes into consideration the number of computers on campus and full-time equivalent student count. Positions are categorized by support function and the appropriate staffing levels are calculated. Applying Saddleback's actual numbers of approximately 3,000 computers and FTES of 16,156 (attained from the State Chancellor's Office Data Mart) and taking into consideration the systems supported by District IT, Technology Services is short-staffed by 17 technical positions (Figure 1).

Direct Costs of Systems Management

Sub Category Assumptions @ 3,000 computers and 16,156 FTES

Network and Systems Admin. (Novel, etc. include wiring staff)

Saddleback equivalent = Network Systems Admin and Network Tech III

Recommended:

1 staff / 300 PCs = 10 technicians

CURRENT STAFF = 4

Web Administration

Saddleback equivalent = Webmaster Recommended:

1 staff per 12,000 FTES = 1.26 webmaster

CURRENT STAFF = 1

Administrative Systems Support (web, user dev. applications)

Saddleback equivalent = Application Specialist II Recommended:

1 staff / 300 PC's = 10 specialists

CURRENT STAFF = 1

Direct Cost of Support

Sub Category Assumptions @ 3,000 computers

Level 1 Support

Saddleback equivalent = Network Technician I & II & Computer AV Technicians Recommended:

1 staff / 150 PCs = 20 technicians

CURRENT STAFF = 8.95

Figure 1.

A.2 How does the staffing structure impact the unit's ability to fulfill its mission/objectives?: The current staffing structure makes it difficult to fulfill the mission and objectives of the unit. Every summer, the department has to hire temporary

employees to complete its yearly computer refresh cycle. Additionally, the growth explosion in technology leaves the department without enough resources to properly manage all projects successfully. The access control project has added a high burden on the department to deploy, support, and maintain approximately 1,000 doors—which all connect to the network. There is demand to add software in many administrative and instructional areas that the department has to support. There are myriad technologies that continue to be added to the college and the expectation is that my department will support it. Due to the staffing levels, there is a lack of cross training, backup support in case of vacation or sick leave, and response time to projects.

B.1 What professional development opportunities are available to the unit's management and staff?: The department is lucky to have professional development funds to assist with the training of department employees. Staff usually ask for PD funds from the classified senate and augmented by department funds. Employees attend yearly conferences to keep the saw sharp and I also purchased a subscription based model for online technical training.

Management attend conferences as time permits. The challenge is finding the time to attend the conferences without negatively impacting existing projects.

B.2 Is this sufficient to meet the needs of the unit?: Yes

C. What are the unit's current personnel needs, if any?: The department needs two positions minimum. 1) a network systems administrator to manage the added network ports as a result of the expansion of access control, wireless devices, construction, classroom technology equipment, IoT devices, and mobile devices (e.g. chromebooks, iPads, etc.) (2) An applications specialist I to handle the support of all applications, training, and deployment

D. Discuss the unit's facilities, equipment, and technological infrastructure.: The classroom technology is in dire need of a refresh and I have just acquired the final round of funding to formally begin the project. The equipment and technological infrastructure is in good shape and refreshed and maintained through BAARC funds.

The department is located in modular building towards the south end of campus. The far location requires the continued use of golf carts to get to other locations on campus. The existing facilities do not have the best floor layout for the operation of the unit but we are able to do our work within it.

E. What are the unit's current facilities needs, if any?: The department needs a formal data center. This is the top priority for facility needs. Additionally, the department needs space to conduct technology deployments.

F. What are the unit's current equipment needs, if any?: Needs are being met through BAARC funding.

G. What are the unit's technology needs, if any?: Technology needs are being met through BAARC funding.

H.1 Discuss the unit's service, outreach, marketing, and/or economic activities.: As a service department, Technology Services focuses on maintaining and supporting all technology needs of the institution. We work collaboratively with all other units to ensure the college can meet its goals and objectives and student success.

H.2 What changes in this area would make the unit more effective?: The department would be more effective by meeting its needs: additional staffing, a data center, additional facilities for deployment, and stable funding that allows for monies to invest in innovation and try different technologies.

I. What are the unit's current marketing needs, if any?: None