

Office of Campus Computing

Strategic Plan 2019-2023

Last updated: January 2, 2019

Table of Contents

I.	Executive Summary	3
II.	Mission Statement	4
III.	Vision Statement	5
IV.	Current Organization Structure	6
V.	Current Services	7
VI.	Guiding Principles for Campus Computing	12
VII.	Strategic Goals	13

Executive Summary

The Office of Campus Computing has traditionally had a much faster planning cycle than many other disciplines due to rapid technological changes combined with the impact of separate campus accreditation within the University of South Florida System. USF St. Petersburg is mandated by Florida law to provide services locally only when USF Tampa services are more costly. Information technology requests continue to grow at unprecedented rates, and place significant stress on the existing Campus Computing infrastructure. As a separately accredited university, existing processes, vision and objectives must be realigned to stay competitive.

As a service organization, the Office of Campus Computing, a department within Academic Affairs, provides value added services needed by implementing strategic technology advances. These services are crucial for USFSP to fulfill the institutional mission, goals and objectives. The Office of Campus Computing Strategic Plan has been developed to articulate and examine services provided/purchased by the Office of Campus Computing and to better define how these services should be enhanced or restructured. This plan has been developed within the mission of USFSP and the ongoing Office of Campus Computing strategic planning process.

The Office of Campus Computing Strategic Plan addresses key areas where participation in development and policy formation is needed. It reaffirms the critical importance of universal access by faculty, staff, students and administrators to Campus Computing resources both locally and remotely. Furthermore, it calls for increased investment in virtual technology, classroom technology, desktop technology, research computing, site licensing and collaborative efforts with other campuses and institutions. The common theme throughout the plan is to build on core competencies; enhance partnerships and to utilize web based technology in the delivery of services.

Mission Statement

The Office of Campus Computing at USFSP is responsible for improving the learning and research mission which involve computing, data communication, access control, CCTV and voice over IP services. The St. Petersburg Regional Data Center (SPRDAC) and Campus Computing Services (CCS) are part of the Office of Campus Computing and support these functions. The Office of Campus Computing is also involved in the planning and implementation of the information technology necessary to support the evolution of USF as a major research institution, and academic programs that require technology.

Vision Statement

The Office of Campus Computing will be viewed as an organization that provides exceptional customer service and technology leadership through professional and supportive action. This will be accomplished with continuous training and development of staff in a collegial and innovative environment.

Current Organizational Structure

The Office of Campus Computing consists of the following positions:

Director & CTO

Systems Administrators

Technology and Systems Manager

Technology and System Analyst

Information Technology Support Specialists

Help Desk Assistants

Functionally the Office of Campus Computing consists of two accounting entities. The St. Petersburg Regional Data Center (SPRDAC) is an auxiliary responsible for all server, network, voice communication, hardware repair, Lenel access control and Exacq CCTV operations for the campus. Campus Computing Services (CCS) is an E&G entity responsible for responding to requests from the user community regarding issues pertaining to computing, phone and voice mail. The computer labs, computer classrooms and classroom technology resources also fall under CCS.

Current Services

The Office of Campus Computing provides a comprehensive array of services for student, faculty, staff and administrative users.

1. Telephone

Cisco Call Manager is the campus standard for telephone service. Over 350 numbers were converted from the USF Tampa legacy phone system during the summer of 2003 at a recurring cost savings of over \$500,000 per year. Units were allowed to retain the phone budget in order to assist with enhancing desktop technology. By 2004 the service had grown by over 35% to over 475 numbers. Today over 1,400 lines are active at USFSP. E&G Departments are not billed a monthly fee for phone service but are responsible for long distance costs, new handsets and new voicemail license fees. USFSP was first USF institution to comply with E911 (enhanced) service.

2. Voice Mail

Cisco Unity voice mail is the institution standard. Voice mail service is provided to over 700 subscribers.

3. Network

The network is the center of all technology services provided to the institution. Redundant core network components are located in Davis Hall & FPF along with one or more network equipment distribution points in all buildings. The network is monitored and supported on a 24/7/365 basis to insure uninterrupted service and consists of 31 buildings: Bayboro Hall, Children's Research Institute, Chiller Plant, Coquina Hall, Davis Hall, Florida Center for Teachers, Haney Landing, Harbor Hall, Knight Oceanic Research Center, MSL, One, Piano Man, Parking Garage, Plant Operations (POR), Poynter Institute, Poynter Library, LPH, Research Lab, Residence Hall One, Science and Technology, Snell House, Student Life Center, SVB, Terrace 100, Terrace 200, Terrace 300, Terrace 400, University Student Center, USGS, Welcome Center and Williams House. Over 5000 network devices are supported in 31 buildings. Wireless network connectivity is available in twenty-eight (28) buildings: Bayboro Hall, Coquina Hall, Davis Hall, Florida Center for Teachers, FTF, Haney Landing, Harbor Hall, Knight Oceanic Research Center, MSL, One, Piano Man, Parking Garage, Plant Operations (POR), Poynter Institute, Poynter Library, Research Lab, Residence Hall One, Science and Technology, Snell House, Student Life Center, SVB, Terrace 100, Terrace 200, Terrace 300 and Terrace 400, University Student Center, USGS and Williams House. Over 396 wireless Access Points provide wireless Internet to students, faculty, and staff on campus.

4. Open-Use Computer Labs

The USFSP Virtual Computer Lab provides access to university licensed applications from virtual desktops running “in the cloud”. Faculty and students have access to both open-use and specialty virtual desktops from on or off campus using their USF NetID. A VMware Horizon client is required to connect to the virtual desktops. The USF VPN client is required to access from off campus. Campus Computing also manages four open-use physical computer labs across the campus. All open-use physical computer lab computers are refreshed on a 3-year refresh cycle. Access to all open-use physical classrooms is provided by the Lenel access control system.

5. Computer Lab Classrooms

Campus Computing supports ten student computer lab classrooms with over 280 student computer systems. These lab computers are located in Bayboro Hall, Davis Hall, Coquina Hall, Harbor Hall, Peter Rudy Wallace FL Center for Teachers, Science and Technology, Warehouse Labs, and Lynn Pippenger Hall. Lab computers are replaced on a 3-year refresh cycle. Access to all computer classrooms is provided by the Lenel access control system.

6. Classroom Technology Resources (Smart Classrooms)

Classroom Technology Resources (CTR) was established to support the computer technology needs of USF St. Petersburg faculty and students in a classroom setting. CTR provides the computing resources necessary for instructors to enhance the learning experience of all USF St. Petersburg students. All 62 instructional classrooms are equipped with an Internet connected computer with USF site-licensed applications and a Cisco Voice-Over-Internet phone. Faculty log into these computer systems using their USFSP Bayboro account. Classroom computers are replaced on a 3-year refresh cycle.

7. Hardware Repair

Located in Bayboro Hall 226, the St. Petersburg Regional Data Center (SPRDAC) Hardware Repair Center is the St. Petersburg in-house source for convenient, economical repair services on USFSP standard Dell OptiPlex and Latitude models. Experienced technicians are trained and keep up-to-date on the latest in technology. They work in assigned territories, so you have the opportunity to get to know them, and they can become familiar with your equipment and your maintenance requirements. They come to you, often taking care of your problems on-site the same day. Departments with University-owned Dell OptiPlex or Latitude equipment and valid account numbers are eligible for service. In addition, there are University-related organizations that qualify for Dell OptiPlex or Latitude service, including all grant, A&S and auxiliary activities.

8. Infrastructure

SPRDAC staff, play a key role in maintaining the outdoor fiber cable plant, indoor copper plant, generators, electrical and cooling systems that provide the necessary environment for uninterrupted service.

9. Help Desk

The Help Desk staff provide phone and onsite technology support for faculty, adjunct faculty, students and staff. They are responsible for escalating calls when necessary and supporting the tracking software used to manage and service over 4,000 end user requests per year. Another key responsibility is keeping pace with the current technological trends as they apply to USFSP.

10. Access Control

In 1997, USFSP established numerous measures to increase the security for students, faculty, staff, and facilities. Access control is part of these measures. The objective of this project is to improve the security of the University of South Florida St. Petersburg by better managing the access to facilities. The objective is also to implement a system that enhances security without disrupting the educational, research and other activities of the institution. The project has been implemented using a hybrid system of electronic card readers, metal keys, and scheduled electric locks. The primary focus is to secure the buildings. In most cases, several exterior doors on each building will be equipped with card readers. Remaining exterior doors will be locked automatically on a time-of-day basis. These doors will allow for exit but not for entry during after hours. In buildings where some interior areas cannot be accessed from a single exterior door, multiple card readers will be used. The system requires that all faculty and staff have a valid proximity card. Over 2,400 access cards are active, supporting potential access to over 200 doors in 15 buildings: Bayboro Hall, Children's Research Institute, Coquina Hall, Davis Hall, Florida Center for Teachers, Harbor Hall, Parking Garage, Piano Man, Science and Technology, Student Life Center, Research Lab, Residence Hall One, University Student Center, Warehouse Labs, and Lynn Pippenger Hall.

In 2001, President Judy Genshaft established a task force to improve USF security. USF Tampa adopted the technology in use since 1997 at USFSP for use in Tampa. A 1.5 million dollar retrofit project was approved and funded for the Tampa campus.

11. CCTV

Campus Computing offers full-featured, full-performance digital video systems that have revolutionized the use of video for security applications. The distributed system

was first implemented in 1997, and advances in technology continue to drive its evolution, setting the standard for digital video management today. The video security system network has expanded to multiple buildings and more than 400 cameras.

12. Scantron

Three Scantron systems are currently available. Scantron machines are located in Davis Hall 215 and Bayboro Hall 226 and Lynn Pippenger Hall. Faculty are responsible for all test scoring. Campus Computing Services does not archive the electronic answer sheet data and student reports. If exam records need to be saved, USB memory stick is needed.

13. Free Pay for Print

The open-use computer lab in the Student Success Center offer a free 22 page a day pay for print system for blank and white printing.

14. Institution Print Server

Network printing is offered to those departments who wish to utilize this service. With approximately 117 network printers available, printing needs can be consolidated and streamlined offering a dramatic cost savings by eliminating the need to have individual printers purchased for each desktop computer. Standard printers are made by Hewlett-Packard.

15. Institution File Storage and Backup

Campus Computing offers the service of data storage. Each faculty and staff member has server storage designated to them and can be located under the icon named "My Computer" as drive letter P:\. In addition, each department has a shared drive (Q:\, R:\, S:\, T:\, U:\) on the server for all office members to share files within the department. Both the personal and shared drives are backed up on a nightly basis in case of accidental deletion or file corruption.

16. Campus disk images for existing hardware

Dell disk images are maintained on servers to provide rapid system restoration in the event of a hardware failure or for rapid deployment of new system purchases.

17. Electronic Mail

Electronic mail services are provided for over 10000 faculty, adjunct faculty, staff and students through Google. .

18. VPN

Providing faculty and staff access to campus computing resources regardless of location has become a common request. A Cisco Virtual Private Network are operational and support secure access.

Guiding Principles for Campus Computing

1. In the 2001 legislative session, lawmakers approved SB1162 regarding education governance. Section 37 of SB 1162 provides USF St. Petersburg independence to operate as a separate budget and organizational entity. Specifically, Section 37 2(c), provides authority to enter into central support services contracts with the Board of Trustees of the University of South Florida for any services that the St. Petersburg campus **cannot** provide more economically including technology. The current contract for \$731,963 in IT services covers FAST, GEMS and OASIS.
2. All faculty, staff and students should have access to computing resources appropriate to their needs and responsibilities. This access should be provided by a network that is reliable, with minimal downtime and configured using open standards.
3. Institutions that rely on departments to purchase PCs end up spending more money and receive less in return. This decentralized model creates a Noah's Ark model of computing with each group of animals requiring a unique diet of firmware, driver and hardware updates. Personnel, expectations and ongoing support costs become difficult to manage. A better model is the life cycle approach that strives to replace a desktop PC every 48-60 months. This approach is much more affordable due to the fact that systems can be purchased in bulk, use common disk images, firmware upgrades and parts during the life of the product.
4. All units must recognize that the growth of our reliance on information technology requires that an increasing portion of fiscal resources be dedicated for support. Technology decisions need to accurately recognize one time and recurring costs for both equipment and personnel. Funding for these costs must be provided on a recurring basis since consistent support is critical to the technology planning process.
5. Institution wide technology planning that will best serve the needs of all units, the establishment and implementation of policies and standards to facilitate use should be the primary responsibility of the Office of Campus Computing.
6. The institution should explore opportunities in distance education for credit courses delivered by academic units. Technology is the key component for distance education and support should be provided for curriculum development and electronic classroom management.
7. Technology for classrooms should be adequately configured and maintained with close cooperation with the academic units. Support should be provided for training and maintaining ongoing operations.

Strategic Goals

1. Computer Desktop Technology Refresh (Faculty and Staff)

Using central funds, Campus Computing was able to replace over 400 aging faculty and staff computer systems across the USFSP campus at the end of FY2017/2018. All computer systems that were over 5 years old were replaced with new equipment. Campus Computing plans to work with Administration and Finance to ensure funds can be acquired to refresh faculty and staff computers on a regular basis. In years past, Campus Computing refurbished decommissioned classroom technology to refresh aging faculty and staff office computers.

Life cycle planning will help to guarantee that computers will be replaced on a regular basis. Tens of thousands of dollars will be saved by using volume purchasing and support costs will be reduced by limiting the number of hardware variations. The Office of Campus Computing will identify and replace a Dell desktop computer, keyboard, and mouse every 48-54 months for all E&G units. Monitors, laptops, peripherals, Apple devices, and printers will be the responsibility of the individual units.

Fiscal Year	Estimated Cost	Description
FY 18/19	\$130,000	Phase 1 Windows 10 migration
FY 19/20	\$100,000	Phase 2 Windows 10/MacOS Mojave migration
FY 20/21	\$400,000	200 unit computer refresh
FY 21/22	\$400,000	200 unit computer refresh
FY 22/23	\$700,000	400 unit computer refresh

2. Classroom Technology Resources

Classroom computers are refreshed on a 4-year cycle. This includes both instructor and student use computers in USFSP classrooms. The computers that are removed will be refurbished and provided for use elsewhere on campus as long as they comply with Campus Computing support standards. With plans for student enrollment to increase, the need is evident for the enhancement of instructional facilities. Supporting innovative teaching facilities will help to attract and retain faculty and students. The Office of Campus Computing will work with the academic units to identify large classrooms that will be better served by using projection equipment and document cameras.

Fiscal Year	Estimated Cost	Description
FY 18/19	\$320,000	All instructional and student classroom computers running Windows 7 or are at their EOL date.
FY 19/20	\$160,000	Proposed new computer labs- SMART, HBR
FY 20/21	\$260,000	LPH, WHL, COQ classroom computer upgrades
FY 21/22	\$200,000	New classroom and lab additions
FY 22/23	\$350,000	All campus classroom refresh

3. Site/Volume Licensed Software

The Office of Campus Computing will work to expand the site /volume licensed software packages that will benefit the institution. Among the benefits are significant cost savings to departments, a wider array of products and free updates.

Currently End Note, Microsoft Office, SAS, SPSS and Trend Micro Antivirus are site licensed products. Security and management software costs increase as new devices are purchased and used by USFSP faculty, staff, and students.

Fiscal Year	Estimated Cost	Description
FY 18/19	\$145,000	Site-licensed software
FY 19/20	\$150,000	Site-licensed software
FY 20/21	\$155,000	Site-licensed software
FY 21/22	\$160,000	Site-licensed software
FY 22/23	\$165,000	Site-licensed software

4. Wireless

Wireless networking uses radio frequencies to send and receive data between PCs and network devices (Access Points). More students today have wireless ready laptops and have registered them in order to be able to access the USFSP network. Access points need to be located in strategic locations throughout institution and support indoor as well as outdoor locations. The Office of Campus Computing would like to expand wireless connectivity to additional areas for student access.

Fiscal Year	Estimated Cost	Description
FY 18/19	\$55,000	Maintenance and repair
FY 19/20	\$100,000	Upgrade to newest standards
FY 20/21	\$50,000	Increase campus coverage
FY 21/22	\$55,000	Maintenance, repairs, and replacements
FY 22/23	\$55,000	Increase campus coverage

5. Home Access (VPN)

Providing faculty and staff access to campus computing resources regardless of location has become a common request. Home access to campus file storage is limited at this time due to numerous Microsoft software flaws. Many faculty and staff have requested access since. Cisco Virtual Private Network server maintenance is needed to maintain secure access.

Fiscal Year	Estimated Cost	Description
FY 18/19	\$8,000	Licensing and maintenance
FY 19/20	\$8,000	Licensing and maintenance
FY 20/21	\$8,000	Licensing and maintenance
FY 21/22	\$15,000	Hardware refresh
FY 22/23	\$8,000	Licensing and maintenance

6. Building Access Control

The USFSP campus-wide Card Access System is designed to provide access control to campus buildings without the need for staff to manually lock and unlock perimeter exits. It can also provide access control to building offices, computer labs, high security areas, etc. In the case of perimeter control, each exterior door must be equipped with the following hardware:

- Fail-secure (locked when unpowered) electric locking device (electric strike or electric panic device)
- Door contact/switch (to monitor the status of the door <open/closed>)
- Motion/Request-To-Exit Sensor (RQE) (shunts the door contact break when the door is opened from the inside)
- Steel, key-removable center mullion for double-door exits with a separable connector for wiring harness (unless double door with electric panic device is specifically requested)

Designated exterior doors will also be equipped with proximity card reader. One or more exterior doors will be designated to be equipped with a key-override for emergency and maintenance personnel use in the event that the Card Access System is not available (e.g. system failure) and no other exits are to have key accessibility unless specifically called for. Door hardware selection is to be carefully coordinated with USFSP design guidelines and the Physical Plant Lockshop. The responsibility for wiring of the hardware and Card Access System components will be carefully and specifically defined for hardware, electrical, and card system contractors.

Fiscal Year	Estimated Cost	Description
FY 18/19	\$9,000	Maintenance and new readers
FY 19/20	\$8,000	Maintenance and new readers
FY 20/21	\$20,000	System upgrade to OnGuard system
FY 21/22	\$15,000	Upgrade EOL hardware
FY 22/23	\$10,000	Upgrade EOL hardware

8. Virtualization

Key areas for future delivery include the need to deliver software and technology services virtually.

Fiscal Year	Estimated Cost	Description
FY 18/19	\$140,000	VMware licensing
FY 19/20	\$87,000	Hardware refresh
FY 20/21	\$80,000	Maintenance and upgrades
FY 21/22	\$150,000	VMware licensing
FY 22/23	\$90,000	Hardware refresh

9. Scantron

USFSP needs to continue our commitment to faculty by offering the latest education technology to address the complexity of designing and managing the right curriculum and assessing students with effective solutions that streamline and simplify the assessment process. When combined with Blackboard, the combined systems offer a powerful and comprehensive way for faculty to diagnose skills, develop learning strategies, create tests tailored to individuals, measure progress, and report and analyze results. This product can be used separately, together or in various combinations, giving faculty flexibility in creating a solution. Scantron test scoring equipment is available in Bayboro Hall, Piano Man and Davis Hall and maintenance is required for reliable system performance.

Fiscal Year	Estimated Cost	Description
FY 18/19	\$4,800	Maintenance & Repair Fees
FY 19/20	\$35,000	Hardware and software updates
FY 20/21	\$5,000	Maintenance & Repair Fees
FY 21/22	\$5,000	Maintenance & Repair Fees
FY 22/23	\$5,200	Maintenance & Repair Fees