



INFORMATION TECHNOLOGY

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Strategic Plan 2019-25

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Information Technology Strategic Plan

Introduction

Sonoma State University (SSU) understands how important Information Technology (IT) is to the success of our students. We support and follow the California State University's (CSU) integrated technology strategy, led by the Cal State University Chancellor's Office, and we participate in most system-wide IT services. Collaboration has served the CSU well, enabling the system to achieve economies of scale and benefit from shared experience across the system. The CSU system recently embarked on the Graduation Initiative 2025 (GI 2025), which is designed to accelerate student success and degree completion. This initiative is the basis for Sonoma State University's (SSU) commitment to help remove obstacles to student success, enable students to experience transformation, and make a lasting impact in the North Bay and throughout California.

To align with GI 2025, campus Chief Information Officers (CIO's) and the Chancellor's Office IT services have again collaborated, this time to articulate the guiding principles, vision statement, and key priorities for system-wide technology efforts, many of which are highlighted here. Achieving the CSU key priorities will enable SSU IT to better support our student success strategies. Because technology permeates nearly every aspect of university life, GI 2025 is the foundation for many of the strategies that that we have developed toward achieving these goals.

Scope

This plan encompasses all information technology across the University, including the teams that support the delivery of services.

Building Our Future @ SSU - Strategic Plan 2025

SSU Mission

Sonoma State is a regionally serving public university committed to educational access and excellence. Guided by our core values and driven by a commitment to the liberal arts and sciences, Sonoma State delivers high-quality education through innovative programs that leverage the economic, cultural, and natural resources of the North Bay.

SSU Vision

Sonoma State University embraces innovation in our quest to be a national model for public higher education by 2025. Our students graduate prepared to meet the challenges of the 21st century and to make an impact in the community and the world.

Core Values

Our core values are an expression of who we are at Sonoma State. We proudly embrace integrity, respect, excellence, and responsibility as part of our Seawolf Commitment. Our core values include:

- Diversity and social justice
- Sustainability and environmental inquiry
- Connectivity and community engagement
- Adaptability and responsiveness

SSU Strategic Priorities

1. Student Success
2. Academic Excellence and Innovation
3. Leadership Cultivation
4. Transformative Impact

Guiding Principles of CSU Chancellor's Office relevant to SSU:

- Enable data-driven decisions
- Reduce costs, increase efficiencies and achieve economies of scale
- Share resources and foster collaboration
- Ensure privacy
- Increase communication and transparency
- Focus on service to students and faculty
- Enhance quality and strive for continual improvement
- Create a sustainable professional workforce
- Foster green IT

Strategic Plan Alignment

The purpose of the IT Strategic Plan is to set the vision of where our limited technology resources will be aligned in order to improve the student experience and advance the mission and vision of the institution. We have aligned our high level IT Initiatives with our Strategic Priorities below:

Academic Affairs & IT Strategic Plan Goals & Tactics

Information Technology within Academic Affairs added specific IT related goals, tactics, and related milestones to support the SSU strategic plan **AS OF JANUARY 9, 2019**.

We are committed to this being a living, breathing process with annual assessment and modifications. Note that if a goal is accomplished it can be changed over time or can be put in the "accomplished" category. Then, a new goal may take its place. Tactics are the **suggested strategies** to help SSU reach our goals. Once refined, the tactics then will be supported by metrics and milestones, so we can measure progress annually. In the first year, we anticipate that most metrics will hinge on the initial identification of: (1) the current state or baseline of the issues related to each tactic; (2) annual milestones for each tactic.

PRIORITY #1: STUDENT SUCCESS

GOAL 1: Meet SSU's GI2025 graduation and retention goals, including elimination of equity gaps.

TACTICS	MILESTONES
<p>Systematize identification, communication, and training relevant to student success best practices (including advising, scheduling, at-risk student support, etc.).</p>	<p>The technology (https://www.eab.com/) called EAB and EAB Mobile have been procured and implementation is currently underway. The tool will be used to communicate with enrolled students regarding advising, and other related activities as the functional are sees fit. EAB Mobile will deliver this tool to the students' smart phone, which can be accessed by Wi-Fi from many locations across SSU.</p> <p>Work with 7 other CSU's on a grant to implement AdmitHub, which is another technology product to increase communication to students regarding common questions for students to ask 24/7. AdmitHub uses chatbots to provide a conversational artificial intelligence (AI) talkbot that is used to answer questions. These questions/ answers are pre-loaded and anticipated in advance so the staff can focus on unique questions rather than common requests for information and reduce face-to-face contact and provide answers around the clock.</p>
<p>Implement and support effective student success technology support for improved advising, early warning and overall student academic support.</p>	<p>The EAB products above address the early warning component and the analytics behind EAB will allow us to target student academic support more effectively.</p>
<p>Identify and remove barriers to graduation and timely progress to degree. This would include tracking units to degree, waitlists, course scheduling to meet demand, as well as examination of barriers to entry and persistence.</p>	<p>Apply Online is the technology to help reduce graduation barriers by allowing students to apply for graduation online.</p> <p>The current SSU Degree Planner is "live" for 90% of majors. IT has completed all technical work and integration. This product will not be supported into the future, so we are starting to plan for our migration to EAB Planner.</p> <p>Our future plan is to implement EAB Planner to track units to degree and help student to plan their course schedule for meeting degree requirements.</p>

	<p>Barriers to entry and persistence is being analyzed to determine if students fail at a certain quantity of classes, that “integrated advising” should ensue.</p> <p>The implementation of Tableau supports our Reporting & Analytics team in their efforts to provide data for data driven decision-making for needed course offerings and student success.</p>
<p>GOAL 2 Create and implement a sustainable A-G (admissions to graduation) student recruitment and support services plan that aligns with SSU's identity as a regionally-serving and Hispanic Serving Institution.</p>	
<p><u>TACTICS</u></p>	<p><u>MILESTONES</u></p>
<p>Create and implement an academic student support services plan that includes tutoring (LARC), supplemental instruction, and advising support. This could include consideration given to expanding LARC (tutoring) hours, expanding consultation to Zoom meetings with students, and using other innovative ideas to respond to students' need for more instructional support.</p>	<p>Learning and Academic Resource Center (LARC) has been given access to EAB and is using this technology tool. Our Zoom subscription, single sign on (SSO) support, and integration will continue.</p> <p>Yuja is a video tool that can be considered in the future as a replacement for Zoom. Yuja has integrated captioning, which is critical for our accessible technology initiatives (ATI). A Yuja pilot is underway for “lecture capture” purposes, so we are unsure if this product will be offered across the university in the future.</p>
<p>Support SSU's diverse population with a focus on graduate and PBAC enrollments and programs, devise an overall recruitment and support plan for those programs and schools that includes integrated teacher education programs and pathways as appropriate.</p>	<p>A Customer Relationship Management (CRM) tool was procured called Enrollment Marketing Platform (EMP). It is in the process of implementation with the functional team.</p>
<p>GOAL 3 Modernize SSU's teaching and learning spaces and business processes in support of student success.</p>	
<p><u>TACTICS</u></p>	<p><u>MILESTONES</u></p>
<p>Create and maintain twenty-first century teaching and learning classroom standards to ensure learning spaces aligned with student and curricular needs. This includes updating standards to align them with online education best practices to encourage more online offerings at SSU.</p>	<p>The Academic Technology department, Faculty Center, and IT department have worked with Academic Affairs and the Academic Technology and Instructional Spaces Subcommittee (ATISS) to establish SSU standards for mediated classrooms. We have a plan to modernize our classroom technology and have detail rooms and a schedule for implementation. The bid has been completed</p>

	and installation will occur in summer '19. Two prototype rooms have been established and ATI has been taken into consideration with height adjustable podiums and monitors. Microphones and speakers are included in this project.
Modernize and automate intake of transfer records; course substitution and petition forms; electronic transfer request system, and other systems that will enable students to progress more smoothly through SSU.	IT completed the OnBase implementation and has worked with users on training. Transcripts will eventually be scanned, indexed, and stored within OnBase for access by all approved staff. eTranscript is another technology that currently loads data directly into PeopleSoft. Eventually, transcripts will be imported directly into OnBase. Parchment is another technology that would eventually allow electronic transcripts to be used. Credential Solutions is another technology that provides online transcripts to students, and was implemented in 2019.

PRIORITY #2: ACADEMIC EXCELLENCE AND INNOVATION

GOAL 1 Diversify our faculty and staff ranks while supporting existing faculty and staff to ensure all employees are well positioned to support SSU's multicultural student population.

TACTICS	MILESTONES
<i>Hiring practices:</i> Align our hiring policies with our inclusivity and diversification goals (e.g., how hiring committees are constituted, what information can and should appear on an application form, what compensation packages and professional development support are offered, articulating employee benefits more robustly, etc.). Share findings broadly so all faculty and staff are aware of our current gaps in diversity and we can improve our unconscious bias training and other efforts to improve hiring practices.	<p>The IT department worked with H/R and was able to procure and used a service to advertise three positions within IT on multiple diversity websites. Article: https://workology.com/18-job-boards-perfect-for-diversity-recruiting-compliance-efforts/</p> <p>Multi-diversity job posting site that IT used: https://www.prodivnet.com/recruiters/products</p> <p>Diversity site that Stanford uses: https://jobs.imdiversity.com</p>
<i>Climate:</i> Work in concert with the other divisions to create a change in climate to reduce unconscious bias and promote a sense of belonging and inclusive excellence. This may involve developing a more explicit shared	<p>IT completed a CIO commitment with Educause as follows: https://www.educause.edu/about/cio-commitment</p> <p>IT is committed to raising awareness about the benefits of diversity and to reach out to publications</p>

definition of diversity and inclusive excellence at the campus level.	for advertising and will make a concerted effort to increase departmental diversity.
GOAL 2 Deliver innovative, high-quality academic programs that prepare students for the regional and global workforce, and to contribute meaningfully to twenty-first century society.	
TACTICS	MILESTONES
Ensure that all programs and/or schools for which accreditation exists are pursuing and maintaining accreditation.	<p>There was an accreditation finding presented to SSU on March 9, 2018. There was a recommendation from the Western Association of Schools and Colleges (WASC) commission to address the following:</p> <p>Creating an IT strategic plan to improve the student experience and advance the mission and vision of the institution. (CFR 4.6)</p> <p>This IT Strategic Plan is intended to fulfill this requirement.</p>
Develop more internships and corporate partnerships to ensure strong employment opportunities for our students after they graduate.	<p>The IT Project Coordinator team is interested in creating an opportunity for SSU students to participate in IT related project management as an instructional opportunity within the IT department. This will be used as a prototype and if successful, will be expanded to other IT teams. Our Information Security Officer, Computer Operations, Networking, and Help Desk are currently employing students, but we see an opportunity to do an internship for project management activities. The SSU community at large can benefit from project management and a consistent approach would be ideal.</p>
GOAL 3 Amplify and support the expression of SSU's core values and strategic priorities in our curricula.	
TACTICS	MILESTONES
Simplify the curriculum approval process to enable easier experimentation with possible innovations in programs and courses.	Curriculog is a new technology that is a digital workflow solution that will simplify the curriculum approval process. IT will provide the course data from PeopleSoft and provide single sign-on (SSO) integration.
Meet ATI Compliance Requirements	<p>Develop and ATI Compliance Initiative and create a prioritization matrix with required tasks. Some initiatives that are underway include:</p> <ul style="list-style-type: none"> • Yuja • Ally • Investigation for a web accessibility tool to replace Compliance Sheriff <p>Streamline the procurement process for technology related hardware, software, and cloud.</p>

GOAL 4 Migrate critical IT services to the cloud for redundancy, high availability, backup, scalability, and increased security.

TACTICS	MILESTONES
<p>Procure an Amazon Web Services (AWS) space to migrate our virtual servers to the cloud. Prioritize our services according to highest security requirements, such as PCI, HIPPA, and FERPA.</p>	<p>Our completed hosted environments include:</p> <ol style="list-style-type: none"> 1. AWS for VMWare (VMC) (beginning stages) 2. Google Migration for email, calendar, and contacts 3. AWS for backups 4. LMS migration to Canvas 5. Yuja lecture capture application 6. EAB 7. CashNet 8. CSULearn 9. MetaBim 10. Smartsheets 11. RMS 12. Qualtrics 13. PhishMe 14. Academic Works 15. Maxient 16. Point N Click 17. Tableau <p>Future projects include:</p> <ol style="list-style-type: none"> 18. PointNClick – enhanced services 19. MedProctor <p>We have one large IT project to replace our existing SAN in the SSU datacenter in 2020 or 21. This will require budget augmentation and the more items we are able to migrate to the AWS cloud, thus not storing the data in the SSU datacenter, will allow for smaller Storage Area Network (SAN) or disk array and a reduced financial investment.</p>

GOAL 5 Formalize the IT project list and governance process, establish IT standards, and communicate university-wide on major IT initiatives.

<p>Formalize governance and project prioritization and ensure strategic alignment. Ensure IT resources are used efficiently and focused appropriately.</p>	<p>ITAG has been established to govern the IT project list and approve university-wide technology related standards. A formal IT project request form has been established and prioritization has been completed starting in 2018. Establish a scoring matrix to add a scoring mechanism to project requests within Qualtrics. Use SmartSheets to track and detail the IT work and use the IT website to communicate our projects and completions.</p>
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PRIORITY #3: LEADERSHIP CULTIVATION

GOAL 2 Support SSU faculty and staff in their professional development and RSCA so they can be leaders in the community and their disciplines.

TACTICS	MILESTONES
Develop and implement sustainable professional development and RSCA support plans.	CSULearn was a new CSU-wide technology that was implemented with single sign-on (SSO) and provides professional development opportunities to all faculty and staff. SkillPort was retired and the content was migrated successfully to the new platform.
Establish a Project Management Office within the IT department that serves any SSU strategic initiative, which could benefit from increased success and adoption across the university.	Project Coordinators are assigned to high risk and complex activities that require communication and structure to ensure higher success and adoption. Project include: <ol style="list-style-type: none"> 1. Google Migration 2. ATI Initiatives 3. OnBase 4. Stevenson Surge 5. VoIP phone migration 6. IT Strategic Plan 7. Drupal Upgrade Change Management will eventually be introduced to improve user acceptance. The goal is to establish process training and provide templates for consistency.

PRIORITY #4: TRANSFORMATIVE IMPACT

GOAL 1 Deploy SSU talent (faculty, staff, and students) for high-impact and/or community-based service, research, and engagement.

TACTICS	MILESTONES
Promote high-impact and/or community-based research, service, and community engagement related to local issues and the local economy (such as water quality, wine research, fire ecology, resilience, etc.). This may also include assessing the possibility of using research crowdfunding, such as experiment.com.	SSU entered into a partnership to provide Internet connectivity to the North Bay for fire prevention and early detection. A microwave dish was installed on the roof of Darwin, and connected to the Cenic backbone to provide and project the Internet to SSU's preserve. This service will be sent to additional microwave stations to provide cameras and information to fire officials.
Devise sustainable means of more intentionally integrating our environmental and cultural resources (e.g., the preserves, the campus, the	Since the Internet was brought to the SSU Preserve for the North Bay Fire Alert System, this will allow data for many reasons to be collected and analyzed for instructional opportunities.

Green Music Center) into teaching, learning, research, scholarship, and creative (RSCA) opportunities.

GOAL 2 Increase information technology security and related initiatives with focus on compliance requirements.

TACTICS

Improve our security posture at SSU and ensure compliance with CSU standards, state and federal laws, education code, and other related entities.

MILESTONES

The following security initiatives have been implemented or are in progress:

1. GDPR compliance has been met: <https://www.sonoma.edu/privacy>
2. Our IT Disaster Recovery plan was completed and audit findings from the Chancellor's Office (CO) have been closed. Additional testing is necessary.
3. Multi Factor Authentication
 - a. PeopleSoft (level 1 data)
 - b. OnBase
 - i. IT Department
 - ii. All employees (faculty and staff)
 - c. All students
4. Our Firewalls and CNI network switches were replaced as required by the CO and all related activities signed-off by AT&T.
5. We have implemented an anti-phishing campaign for all faculty and staff and will run each quarter and monitor our progress while we provide education and raise awareness.

Future security projects:

6. Establish a secure container for our vendors to live in a separate DMZ so we can keep them separate from our SSU resources.
7. Add battery backup devices to our wiring closets so that our network switches will remain up during a power outage and VoIP phones will work for a while after the outage. This will be a multi-year project with limited budget, so our wiring closets will be prioritized accordingly.
8. Implement Delphix Data Masking in non-PRD PeopleSoft databases to lower the security risk and further protecting personal and confidential data.

Current IT Tier 1 Projects (50)

As of May 2019, the IT projects are categorized by strategic initiatives and are as follows.

STUDENT SUCCESS (16)

- 3C's requests (Academic Affairs)
- AdmitHub Implementation
- Athletics network and phone connectivity for field house
- Cashless Printing for students in the Library
- Classroom Technology Refresh Project
- EAB - Student Success Collaborative
- EAB Mobile App Implementation
- EMP CRM Implementation
- GE Changes from EO1100 onto ARR
- Implement Payment plans in PeopleSoft (Financial Services)
- Implement Teaching Credentials for transcripts
- New LMS Implementation & Rollout
- PERC (Post enrollment requisite checking)
- Planning for Stevenson computer lab relocation
- SOMO Lease for Extended Ed
- Summer Moves 2019

TRANSFORMATIVE IMPACT (25)

- AdobeSign SSO Integration
- Auto Attendant & Voicemail Replacement (retire Call Pilot)
- CHRS (CO Common H/R System) Upgrade
- Course & Class Data Export for Drupal sites
- Drupal Upgrade

- Implement graduation processing (Academic Affairs)
- Institution Website conversion to Drupal (200 sites)
- IP Phone Migration (GMC & Student Health Center) to retire Nortel
- MetaBim
- MFA (multi factor authentication)
- Move Exchange to Gmail cloud(email, calendar, contacts, listserves, chat)
- New Catalog management software - DigArc (Academic Affairs)
- OnBase Implementation - Admissions
- OnBase Implementation - Records
- OnBase PeopleSoft Integration
- PageUp (Recruiting software)
- Platinum Analytics (ICLM project)
- Raiser's Edge 7 to Raiser's Edge NXT migration
- Replace network switches not on CNI project
- Review/clean firewall rules, document rule's purpose - DMZ, NASA, etc
- Secure Connectivity via VPN (virtual private network)
- Stevenson Remodel and Surge Space
- Tableau (ICLM project)
- Vendor DMZ Firewall
- Yuja Pilot

ACADEMIC EXCELLENCE & INNOVATION (6)

- Ally Software Implementation
- ATI Initiatives, tracking, and dashboards
- Canvas Grade Interface
- Identify and protect high risk workstations
- PeopleTools Upgrade to 8.56
- UPS Project for VoIP (power for phones during power outage)

LEADERSHIP CULTIVATION (3)

- 18/19 MPP evaluation in onbase
- Dispatch transition for University Police
- Northbay Alert System (Fire)

Completed Projects since June 2018

STUDENT SUCCESS (10)

- SumTotal LMS for training (replace Skillport/Lawroom) 2019
- Admissions & Remediation Processing (EO 1110) 2018
- Cal State Apply Implementation 2018
- CASHNet Preferred Name update 2018
- Library Wifi Expansion 2018
- New LMS Pilot Program 2018
- Summer Moves 2018
- Wine Spectator Learning Center 2018
- Zoom API needs to be replaced 2018
- Credential Solutions/Transcripts Plus Implementation 2018

TRANSFORMATIVE IMPACT (23)

- CASHNet "split payment balances" 2019
- 2018 Level 1 Data Inventory Clean-up 2019
- Border Firewall upgrade 2019
- BASIS-to-OnGuard upgrade/migration 2018
- CFS MP 3.0 system-wide upgrade 2018
- CNI (Common Network Initiative) Access Layer 2018
- Convert old transcript to XML Official Transcript 2018
- CS MP3 Testing 2018

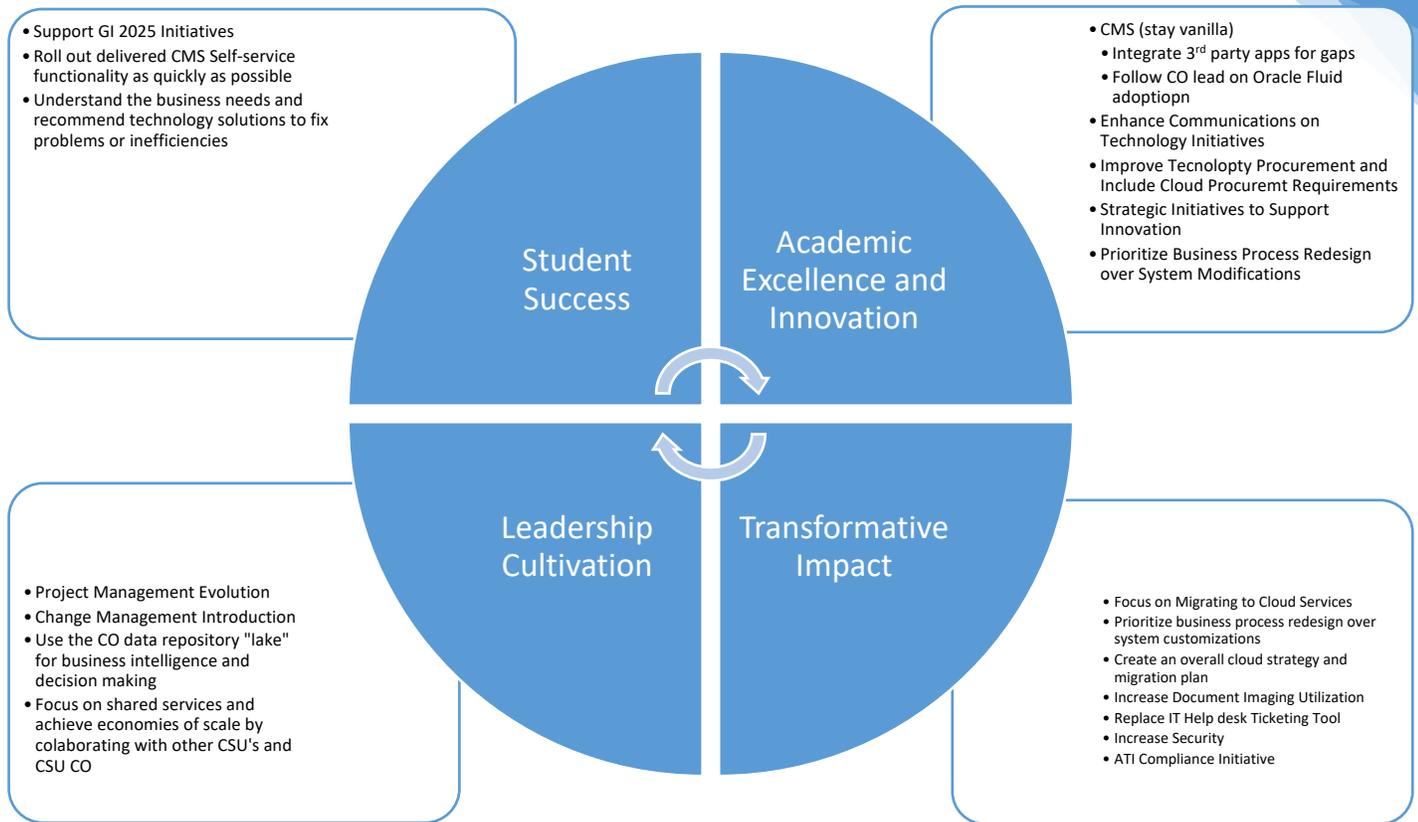
- Faculty and Staff Directory 2018
- Faculty Workload Report by School 2018
- Implement new Budget Software "Questica" (CFS, SA, HR) 2018
- OnBase Implementation - Faculty RTP 2018
- Parking Management Bureau (PMB) data integration 2018
- Raiser's Edge email append 2018
- Tech Classroom Remodel - Schulz 1121 - 2018
- Unofficial Transcript mod 2018
- Update to Custom Audit Table and Purge 2018
- Upgrade to CASHNet advancement webpage/site 2018
- Using Wolfbucks as a form of payment (Financial Services) 2018
- Verdor Village Dorm Remodel (Wi-Fi) 2018
- RMS/Mercury upgrade (Windows/Oracle) 2018
- CaterEase v16 upgrade 2018
- Phishme training for faculty and staff 2019

ACADEMIC EXCELLENCE & INNOVATION (7)

- IT Disaster Recovery Plan (audit finding) 2019
- Develop information security risk management process 2018
- Enhance endpoint patch management 2018
- Information Security Program Review 2018
- Macintosh anti-virus 2018
- Improve baseline hardening standards 2018
- GDPR Compliance (General Data Protection Regulation) 2018

LEADERSHIP CULTIVATION (1)

- Software implementation for Risk & Safety Solutions (RSS) 2018



IT Guiding Strategies

The chart above represents the overarching guiding principles or strategies that the IT department should focus on, as it relates to the use of our resources and focus. Our guiding strategies are categorized by our SSU Strategic Initiatives.

This IT Strategic Plan is a living document and will mature and evolve over time.

We care about IT.