



# **Chief Information Officer**

**Annual Report 2019**

**Berkeley**  
UNIVERSITY OF CALIFORNIA



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Welcome from CIO Larry Conrad

2019 was another productive year and I continue to be impressed by the resilience, perseverance, and commitment of our One IT community to support the campus and make progress on the priorities outlined in our Reimagining IT (ReIT) Strategic Plan.

We launched the ReIT Plan in 2017 and each year we have used an agile approach to reevaluate and reprioritize the projects that would receive our focus, time, and resources for the good of the campus. We spent extensive time this past year working with campus leadership and the One IT community to update the ReIT Plan to realign our goals to the campus strategic framework, balance key campus priorities, and continue to strengthen our IT services.

This report is focused on our four ReIT strategic plan goals, last year’s 16 IT Priority Initiatives supporting those goals, and their support of the larger campus Strategic Plan. For the 2020 fiscal year, we have identified 20 IT Priority Initiatives including two that came in response to the PG&E power shut downs and loss of instruction time that severely impacted the campus during the 2019 fall semester. You can read more about all of our priorities for FY20 in our latest version of the ReIT strategic plan.

Also in 2019, we welcomed several new members to our leadership team including Jenn Stringer, Assistant Vice Chancellor for IT and Deputy CIO; Jody Couch, Executive Director for Enterprise Applications; Shawna Dark, Chief Academic Technology Officer and Executive Director of Research, Teaching, and Learning; Salwa Ismail, Associate University Librarian for Digital Initiatives and IT and Associate CIO; Anne Marie Richard, Director for SAIT and Associate CIO; Rana Silver, Functional Director for SIS; Ross Stivison, Technical Director for Enterprise Applications; and Allison Henry, Chief Information Security Officer. I want to express my gratitude for their taking on their new roles and their ability to hit-the-ground-running and — along with their teams — make important contributions toward our goals this year.

*Larry Conrad*

Larry Conrad, Associate Vice Chancellor for IT and Chief Information Officer

“I continue to be impressed by the resilience, perseverance, and commitment of our One IT community to support the campus and make progress on priorities outlined in our Reimagining IT Strategic Plan.”

ReIT Strategic Plan Timeline



ReIT plan launched in July.



Plan vetted with faculty and administrative leaders.



Campus strategic plan published in December.



Aligned One IT priorities and departmental tactics to campus plan.

2017

2018

2019

Foundational IT tactics identified.



Departmental alignment with ReIT goals and strategies.



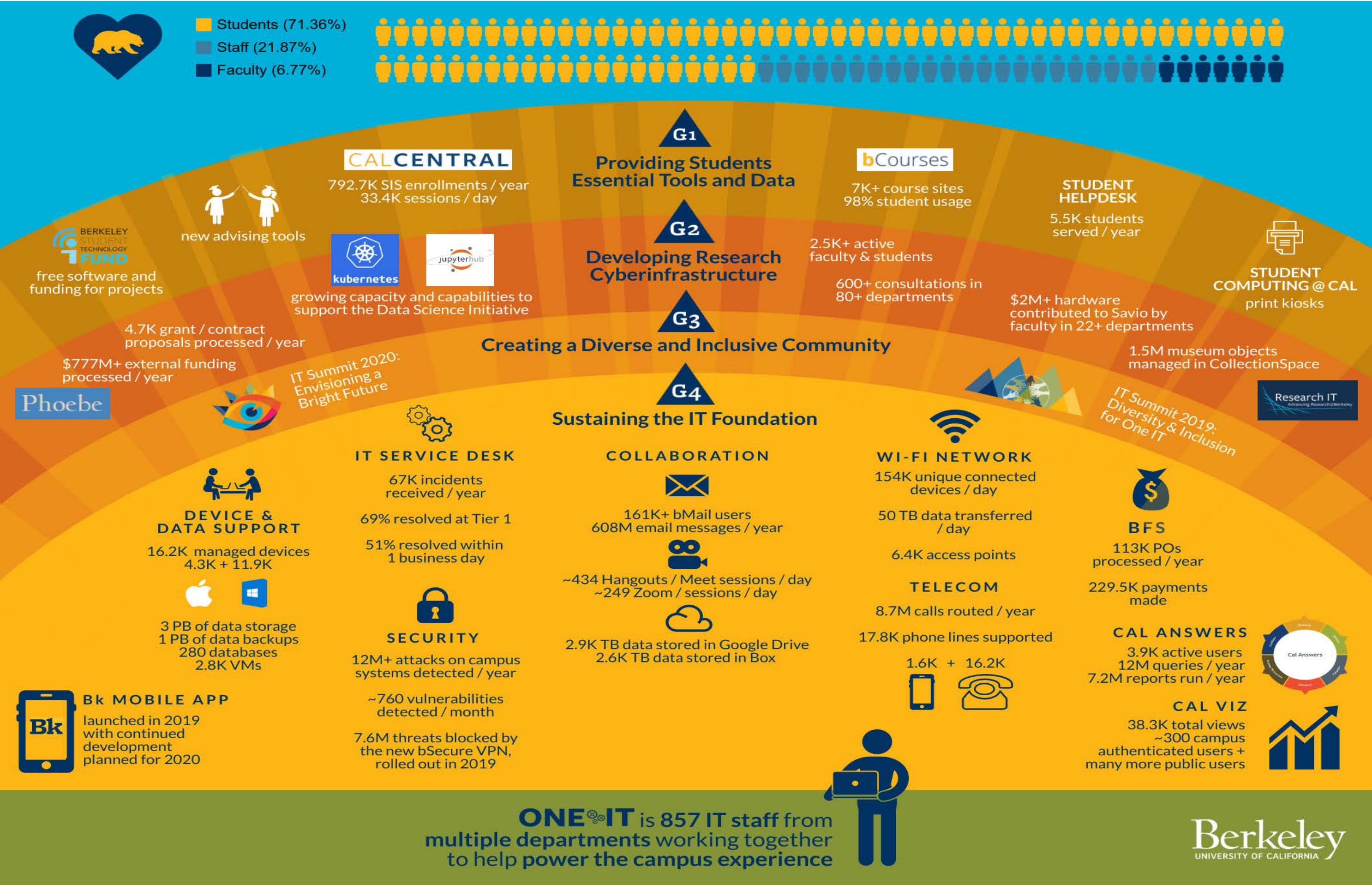
Active participation in campus strategic plan.





One IT: By-The-Numbers

One IT represents the people behind the scenes who work together to provide the tools, data, and infrastructure that powers the campus experience. This graphic is just a snapshot of some of the broad range of critical functions we support each day above and beyond the IT priorities outlined in our strategic plan. [view enlarged image](#)







# Providing Students Essential Tools and Data

[technology.berkeley.edu/strategic-plan/priorities#G1](https://technology.berkeley.edu/strategic-plan/priorities#G1)

Goal 1 of our strategic plan is to provide all students the essential tools and data they need to be engaged thinkers and global citizens.

## IT Priority 1: Digital Learning Initiative (DLI)

Integrate digital pedagogy, digital content, and digital learning analytics in support of innovation and access for teaching and learning by leveraging partnerships.

### Key Support for UC Berkeley's Strategic Plan

*Empowering engaged thinkers and global citizens to change our world*

- The DLI will broadly leverage technology to ensure that students have access to the courses and other academic resources they need to successfully pursue their academic goals and graduate on time.
- Through reflective portfolios and digital tools the DLI will provide technologies to support students' ability to connect with others and with the campus, to discover and create, to engage beyond the campus, and to reflect on their experience.
- Digital Learning Grants can offer expert services in development of hybrid and online courses for innovative master's and 2+3/4+1 programs allowing students the opportunity to graduate with both a bachelor's and master's degree within five years.

*Embracing the California spirit: diverse, inclusive, entrepreneurial*

- Through online course offerings using our current learning management system and downstream outreach, certificate, executive education, and articulated undergraduate online programs, the DLI will leverage technology to create new forms of pedagogy and to make curriculum available broadly to people throughout the state and the world.
- This initiative will position every student to fully participate in and leverage the innovative and ambitious use of new learning technologies by supporting the creation and curation of accessible, affordable, and portable content.

### Accomplishments FY19

- Formed the Digital Learning Services (DLS) unit and began alignments within Research, Teaching and Learning (RTL).
- Provided 5,000 hours of expert services in learning design, tool integration, content creation, and digital accessibility in 1:1 collaborations and consultations with faculty plus offerings available through learning community workshops and digital resources.
- Adobe Fellows which include 13 faculty members in 15 blended learning American Cultures (AC) courses were offered learning design and strategy support for student activities and assignments incorporating digital content creation tools, AC curriculum, and creative process.
- In year one of the Digital Learning (DL) Innovation Grant, we completed the development of a hybrid and online course with four more in progress for FY20.

### Next Steps FY20

- Integrate campus video platform with the learning management system (LMS) for ease of faculty/student digital content creation and distribution within courses.
- Develop and pilot course templates, guided checklists, and trainings for affordable, accessible, and portable design at scale.
- Continue DL Innovation Grants and existing common good services to include Adobe Fellows for year two.
- Build a consortium to deliver certificate and non-degree online programs and custom RTL service offerings.

[digitallearning.berkeley.edu](https://digitallearning.berkeley.edu)

- Continue partnerships with colleges, schools and summer sessions to develop targeted online courses for summer and academic year delivery.
- Pilot integration of learning and support analytics with learning design and delivery efforts for continuous improvement.

## IT Priority 2: Student Computing@Cal

Transform the entire student computing experience at UC Berkeley while reducing redundancy and creating new services that can scale across campus.

### Key Support for UC Berkeley's Strategic Plan

*Empowering engaged thinkers and global citizens to change our world*

- This initiative will enhance the student experience here at Berkeley, ensure that Berkeley will be as well known for the quality of its student experience as it is for the excellence of its academic enterprise, and provide for the basic need for our students to learn and leverage technology in their courses to prepare them for 21st century professions.
- This initiative will provide each student the equivalent capability to connect with others and with the campus as well as to engage beyond the campus.
- This initiative is aimed at providing students with the support and services they need to succeed academically, a key priority identified by the Student Experience working group.

*Embracing the California spirit: diverse, inclusive, entrepreneurial*

- This initiative will foster an equity of experience for students of all backgrounds and will provide equivalent access to capable computing regardless of a student's personal or family financial situation.

### Accomplishments FY19

- Consolidated Pharos print server, to align pricing and streamline support.
- Launched lab printing pilot to determine costs and benefits of a central service and to improve student access to printing solutions.
- Ran two student device pilots to learn more about student computing needs and device preferences.
- Launched print kiosk pilot in two high-traffic campus locations to increase accessibility to student printing.
- Benchmarked student device requirements at peer institutions and drafted recommendation for Berkeley.





# SPOTLIGHT: IMPROVING THE STUDENT EXPERIENCE

Throughout this report, we will share additional projects that were completed that may not have been identified in the strategic plan as top priorities but definitely are huge accomplishments toward our collective goals.



## Financial Aid Process Simplified

Gone are those painful days of students collecting stacks of paper documents, of staff spending hours scanning them, of waves of foot traffic and questions coming through the office. Thanks to the implementation of a new platform called CampusLogic (CL) the financial aid process has been streamlined for both students and staff alike. Today, students upload documents from their phones or tablets, anywhere, at any time. Review is a breeze since CL allows staff to check individual documents as they come in. Time consuming manual processes of the past such as verification, professional judgments, and Satisfactory Academic Progress appeals have been simplified by providing a digital portal for financial aid professionals to manage tasks, review files, and automate student communications and reminders via text and email.

Automated text and email communications are a hit with staff and the students they advise. Those communications and an easy-to-use interface have empowered students to take ownership of their financial aid journey. Staff spends much less time walking students through processes, freeing them up to have deeper discussions with high-need students around borrowing and financial commitments. The best part? The verification cycle time has been reduced from months to days, with a maximum of a couple of weeks during peak times. Easier process for everyone involved is a win-win situation.

[financialaid.berkeley.edu](https://financialaid.berkeley.edu)

## One IT in Action

Collaborating teams:  
College of Environmental Design; Educational Opportunity Program; Fannie Lou Hamer Black Resource Center; Native American Student Development; Student Parent Center; Transfer Student Center

## Bringing Tech Support to Underserved Students

In the 2018-19 academic year, Student Tech Services (who provide tech support and resources to all students on campus) set a priority to increase frontline tech support to underserved students. A pilot program was initiated partnering with six departments on campus that work closely with the populations we wanted to reach: African American and Native American students, transfer students, student parents and low-income students. The idea was to offer satellite tech support locations across campus one day a week to bring the Moffitt helpdesk to where students were already spending time in community with each other.

The results we saw and the feedback we heard was very positive. The total number of service tickets for the semester went up by almost 15% with the most common issues in the satellite locations centering around troubleshooting AirBears2 and accessing campus software. Many students shared their genuine appreciation that Student Tech Services came to them and we saw a general increase in awareness of tech resources available to students.

- Our evaluation of this pilot program has led us in some new directions for the 2019-20 academic year. This year we have been:
- Exploring more standardized, consistent tech support for students in the Chavez/Student Union/Lower Sproul area, where many underrepresented and underserved students tend to access a variety of other services.
  - Continuing to offer satellite services one day a week in four of the six locations that saw the greatest initial success (College of Environmental Design; Fannie Lou Hamer Black Resource Center; Student Parent Center; Transfer Student Center).
  - Implementing semester start services with the Educational Opportunity Program, specifically providing iClicker set-up support during their free iClicker distribution program at the start of each semester.

The Student Affairs IT team continues to look for ways to better serve all students at Berkeley. This pilot program is one of several efforts underway.

[studenttech.berkeley.edu](https://studenttech.berkeley.edu)

## One IT in Action

Collaborating teams:  
Financial Aid and Scholarships Office (FASO); Student Affairs Projects; Student Affairs IT (SAIT); and Student Information Systems (SIS)



[meet the Student Tech Services team >](#)



IT Priority 3: SIS Phase 2

Complete the work remaining from the original implementation effort which will improve the effectiveness, stability, and performance of our new SIS, CalCentral, and associated third-party systems. This effort will leverage the delivered features in the new system and provide tools for continuous service improvements.

Key Support for UC Berkeley’s Strategic Plan

Empowering engaged thinkers and global citizens to change our world

- This initiative will improve the student experience regarding their crucial needs, such as applying for admission, enrolling in classes, and receiving academic based advisement.
- Also included in this effort are improvements to fee payment and financial aid processing to aid students on their financial literacy journey.

Embracing the California spirit: diverse, inclusive, entrepreneurial

- The new SIS will support strategic enrollment increases by supporting new learning technologies such as fully online courses and open entry/open exit instruction modalities.

Accomplishments FY19

Launched SIS Phase 2 Project

- Hired Project Management team, Business Systems Analysts, Developers, and Trainers.
- Met with campus partners to define and prioritize functional needs and develop a roadmap for completion.
- Established project management processes and procedures.

Delivered

- Integration of UCPath Bio/Demo and Job data for faculty, advisors, and student workers.
- CalCentral updates and eForms for Law.
- Redesign of MyFinances card in CalCentral.
- R2T4 Institutional Calculation for Financial Aid.
- eForms for Graduate Division.



Pictured from left: Members of the SIS eForms team Chara Bui, Deepthika Nallaparaju, Jane Valentine, Rahul Shrivastava, Paco Aubrejuan, SVP, Oracle Applications, and Ross Stivison receiving the PeopleSoft Innovators award.

[meet the entire SIS team](#)

SIS eForms Save Trees, Time, and Transactions

Self-service options for students and faculty have been expanded within CalCentral and Berkeley Campus Solutions by introducing powerful, workflow-enabled PeopleSoft-based electronic forms. These online forms empower students to quickly and easily apply for emergency loans, select and manage graduate committees, change their academic programs, add and drop classes, withdraw from the University, and submit petitions for a variety of exceptions. Other eForms enable faculty members to submit workflow-enabled course catalog changes, grade change requests, and re-enrollment requests for graduates.

Through their use of eForms, the University has eliminated over 340,000 paper forms (~680,000 pieces of paper) over the past two years. In addition to reducing paper, the eForms have increased efficiency, enabled faster turnaround, eliminated errors, and dramatically extended PeopleSoft functionality. The forms conditionally route for approvals and then automatically update information, saving thousands of person hours each year through intelligent automation and the elimination of duplicate data entry. The forms include multiple edits that ensure process compliance and data accuracy. As one example, the edits built into the Emergency Loan Request form enable it to automatically process eLoans from the student’s initial request through final loan disbursement without the need for any human intervention if the request meets certain requirements.

Each year, Oracle singles out a handful of clients who have done impressive work with their PeopleSoft systems. The Oracle Corporation chose to honor UC Berkeley as [PeopleSoft Innovators](#) for their work with eForms at their September 2019 [Oracle OpenWorld conference](#). eForms are used by the Office of the Registrar, Financial Aid, University Extension, Graduate Division, and Law.

IT Priority 4: New Advising Tools

Expand advising tools to enable and ensure much more efficient and effective advising support and improve student success.

Key Support for UC Berkeley’s Strategic Plan

Empowering engaged thinkers and global citizens to change our world

- New data-driven and analytic technologies will help shift the focus of advising towards proactive support for academic achievement and the intellectual growth of all our students.
- Significantly improved advising tools will enable students to engage, reflect, and, most critical to their academic success, have the timely guidance needed to support their thoughtful progression through each stage of their student career.

Embracing the California spirit: diverse, inclusive, entrepreneurial

- New student success technologies will provide advisors and students both the tools and insights to support equity and social mobility in our demographically diverse student population and help UC Berkeley achieve its goal of receiving federal-designation as a Hispanic-Serving Institution by enrolling an undergraduate student body that is at least 25% Latinx.
- These analytics-focused advising tools and frameworks will enable us to successfully extend our reach to more Californians to benefit students, their academic experience, and increase enrollment; Berkeley will be as well known for the quality of its student experience as it is for the excellence of its academic enterprise.



Accomplishments FY19

- Dynamic student/adviser cohort-model based on student data attributes.
- Applied learning analytics data for early identification and intervention of at-risk and overlooked students.
- Comprehensive shared advising notes data that includes distinct note sources not previously shared.

Next Steps FY20-21

- Advising at scale with data-driven academic and advising plans.
- Full advising note functionality with the ability to create new and view historical notes, bulk updates, notifications, and templates.
- Tool available campus-wide to interested departments simultaneously with rollout to the College of Letters and Science.
- ProjectDynamic student/adviser cohort-model based on student data attributes.
- Elegant student-facing appointment scheduler.
- Full advising appointment functionality campus-wide.

IT Priority 5: Instructional Resilience

This is a new priority for FY20. Ensure that UC Berkeley has the instructional resources and support services needed so that Berkeley can become much more resilient to power outages, air quality challenges, or other events that could disrupt ordinary instruction in the future.



Building Instructional Resilience with bCourses and Zoom

We learned a lot during the PG&E power outages we experienced this fall. Soon after the initial outage in October, [Berkeley leaders announced a new approach to teaching](#) to help minimize disruption to instruction during these types of events in the future and to help nurture a more collaborative and resilient approach to instruction going forward. An Instructional Resilience Week was declared during which instructors were asked to devote time to making missed course content available and/or to learn how to make future course content available in alternative platforms such as bCourses (Berkeley’s learning management system) and Zoom (web and video conferencing tool). The Academic Innovation Studio was designated the Digital Teaching and Learning Headquarters where in-person support and virtual support were provided to instructors, including graduate student instructors, to convert course content to digital formats.

During resilience week, instructors were provided with Zoom accounts which enabled them to continue providing class instruction virtually from anywhere. This is now being adopted as a best practice for instructors to have in place in cases of natural disasters and unforeseen emergencies that prevent classrooms from being available. Instructors have the ability to capture their lectures using Zoom, thereby avoiding the loss of their content unexpectedly. As a result, there have been 372 new Pro Zoom membership accounts activated since the university closure events in October. This number continues to grow as Zoom has become an important part of our instructional resilience toolkit on campus. Google Hangouts/Meet also saw a significant increase in use during the fall closure events.

Instructor Training and Support Since Resilience Week



“While there may be many approaches to resilience for instructors to deliver course material during unforeseen campus events, our Center for Teaching and Learning has put together [these helpful online resources](#) to ensure classes can always meet.”

— Shawna Dark, Chief Academic Technology Officer and Executive Director of Research, Teaching, and Learning



One IT in Action

Collaborating teams: IST Telecom, Research, Teaching, and Learning, bConnected

One IT in Action

Collaborating teams: Student Affairs IT and Cal Housing

Portalx went live in January 2019

and was used to successfully manage the Fall 2019 housing application season. It now manages all Cal Housing application processes and the legacy portal has been retired.

Supporting the Housing Initiative

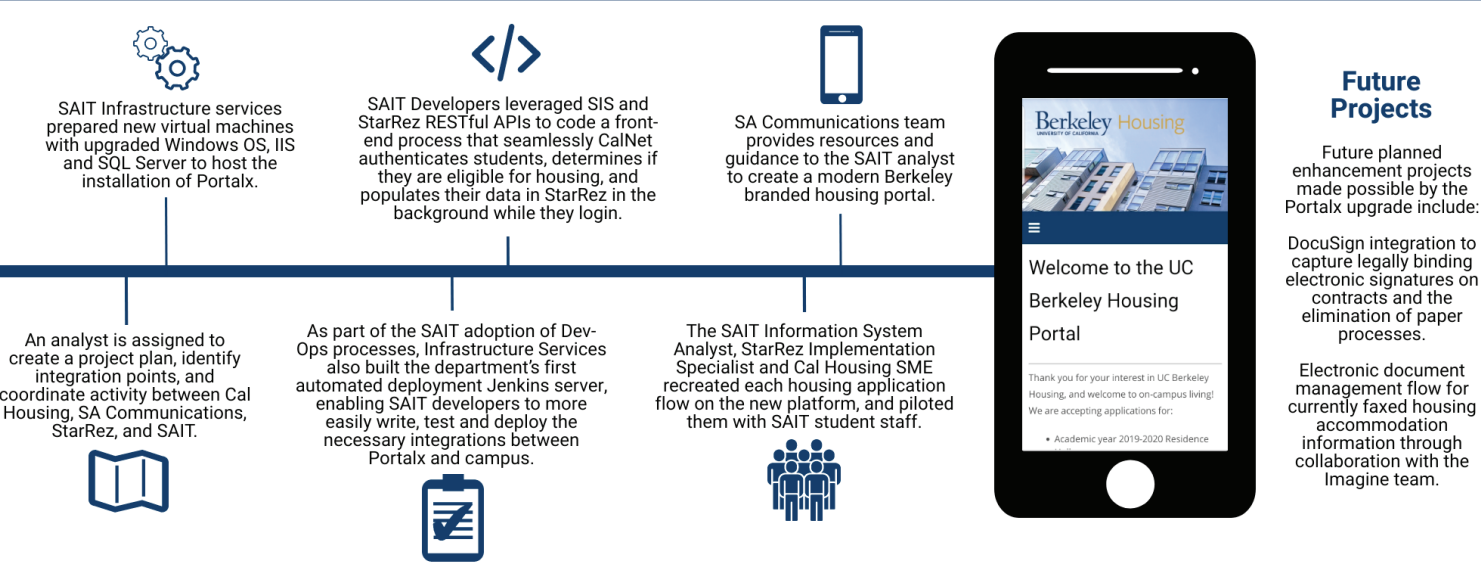
After accepting their offer of admission, applying for housing is the next big step more than 8,000 UC Berkeley students will take. As one of their first campus experiences, it is important the housing application process makes a good first impression for how they will be able to conduct their business and manage life at Berkeley.

Thanks to the successful efforts of the Chancellor’s Housing Initiative, there are now hundreds of new bed spaces to manage, making a robust and efficient Cal Housing’s Application Portal critical for the staff who manage the spaces and the students they serve. In 2018, the existing StarRez Housing platform was ready for an overhaul and was replaced by a new and improved platform called Portalx.

Portalx provides numerous features that position Cal Housing to efficiently manage the next decade of growth including:

- A modern, responsive web platform, allowing students to interact with the Housing Application Portal from desktop or mobile device.
- New modules to better automate roommate selection, and tightly orchestrate student move-in to support Golden Bear Orientation.
- New tools to send emails, update records, and make web service calls, all triggered by data changes.

Cal Housing Application Portal Project Highlights



All of these new features also come with the ability to eliminate the need to pay StarRez for costly custom work, and gives Cal Housing staff full control over every aspect of the Housing Application Portal. Upgrading to Portalx resulted in better performance, improved student experience, operational efficiencies, and long-term cost reductions. Unfortunately, an in-place upgrade was not possible; therefore, Student Affairs IT and Cal Housing collaborated on a year-long project to rebuild the Housing Application Portal from the ground up.

Portalx went live in January of 2019, and was used to successfully manage the Fall 2019 housing application season. It now manages all Cal Housing application processes and the legacy portal has been retired.



## G2 Developing Research Cyberinfrastructure

[technology.berkeley.edu/strategic-plan/priorities#G2](https://technology.berkeley.edu/strategic-plan/priorities#G2)

Goal 2 of our strategic plan is to develop the research cyberinfrastructure Berkeley needs to address society's great challenges and to share knowledge for the public good.

### IT Priority 6: Secure Research Data and Compute (SRDC)

Support faculty, students and postdocs working with sensitive data by developing new and improved IT services for restricted research data, by providing consulting expertise, and by coordinating efforts among the offices involved in reviewing data use agreements and security plans.

#### Key Support for UC Berkeley's Strategic Plan

*Focusing on the good: innovative solutions for society's great challenges*

- The SRDC initiative will support researchers in the creation and preservation of knowledge and ideas by providing support for researchers working with sensitive data, particularly in the Health and Environmental Sustainability and Justice signature initiatives. This work, which will benefit researchers working on the other signature initiatives and across campus broadly, is supported by the Office of the Vice Chancellor for Research, the Dean of the College of Engineering, the Faculty Director of the D-Lab, the Dean of Biological Sciences, the Dean of the School of Public Health, and others.
- In particular, this initiative will directly support the University's ambitious plans to expand research in the biological sciences. The Vice Chancellor for Research, the Dean of the Division of Biological Sciences, and key faculty in this domain have urged campus to improve data storage and computational infrastructure in order to achieve these goals and to recruit and retain faculty and graduate students.

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- By providing instructional capacity, the SRDC Initiative will provide the broader campus community including undergraduate and undergraduate students with the secure research data and compute environments needed to develop critical data skills.

#### Accomplishments FY19

- Enhanced the Savio HPC cluster to support research using moderately sensitive data (PL1).
- Developed support for and submitted a proposal to build a big data resource for highly sensitive data (PL2).
- Improved process for reviews of data use agreement and security plans involving restricted data.
- Developed more consulting expertise to support increased use of restricted data at Berkeley.

### SRDC Snapshot: A Comprehensive Approach & Collaborative Effort

Tools & Services	Consulting & Community	Policy & Governance
One IT Service Providers <ul style="list-style-type: none"><li>• Deliver new and improved RTL services (e.g. Secure Research Systems Admin; PL1 AEoD).</li><li>• Proposal to VCR and CIO for shared infrastructure.</li><li>• One IT: Align service roadmaps to maximize impact for researchers.</li><li>• Work with other UC's on secure cloud and HPC.</li></ul>	D-Lab Working Group <ul style="list-style-type: none"><li>• Community building between researchers and service providers.</li><li>• Requirements gathering.</li><li>• Testing and confirmation of processes and workflows.</li><li>• Develop more consulting expertise across campus.</li></ul>	Research Data Policy Working Group <ul style="list-style-type: none"><li>• Clarify and document process for review of data use agreements and security plans in research.</li><li>• Set direction on policy initiatives, review governance.</li></ul>

#### One IT in Action

Collaborating teams: Research, Teaching and Learning; IST-Infrastructure Services; Office of the CIO; D-Lab; Library; IT Client Services; Vice Chancellor for Research

## IT Priority 7: Support for the Data Science (DS) Initiative

Grow capacity and capabilities among One IT staff to support key data science tools and infrastructure including Kubernetes and JupyterHub.

#### Key Support for UC Berkeley's Strategic Plan

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- Berkeley will support Data Science to ensure that students have access to the courses and other academic resources they need to successfully pursue their academic goals and leverage the RTL unit to provide support and integration for JupyterHub and other technologies used in the DS curriculum.

*Focusing on the good: innovative solutions for society's great challenges*

- We will enable OneIT staff engagement on new and promising technologies such as JupyterHub and Kubernetes that are creating new opportunities for faculty and students to contribute to the Signature Initiatives.

*Embracing the California spirit: diverse, inclusive, entrepreneurial*

- This initiative will support the desired scaling of the Data Sciences curriculum to achieve the ambitious goal of providing data science education to all undergraduate students. In particular, we will lower the barrier to entry to allow minority, first-time in college, and other underserved students to gain greater exposure to leading-edge technologies and high tech concepts. Berkeley will be a technical leader in this space, entrepreneurially creating path-breaking integrated offerings, and propagate its approach to the world.

#### Accomplishments FY19

- Campus-wide Docker and Kubernetes Trainings for IT Staff.
- Knowledge exchange among Data Sciences, IST, RTL, Haas, LBNL, and One IT technical leaders.
- Cloud Community of Practice with monthly events and Kubernetes Community of Practice.
- JupyterHub and Canvas integration.
- Partnership with students in OCF & IST to build Kubernetes research infrastructure.

## G3 Creating a Diverse and Inclusive Community

[technology.berkeley.edu/strategic-plan/priorities#G3](https://technology.berkeley.edu/strategic-plan/priorities#G3)

Goal 3 of our strategic plan is to create a diverse and inclusive community of IT professionals who are trusted and strategic partners with the campus, alumni, and the public.

### IT Priority 8: Accessibility Focus

Drive and promote all campus units to improve the accessibility and usability of all campus websites and other online resources, with special emphasis on the critical services, digital learning resources, and online course content integral to the success of our students, staff, faculty, alumni, and the public.

#### Key Support for UC Berkeley's Strategic Plan

*Berkeley empowers engaged thinkers and global citizens to change our world*

- Berkeley will leverage technology to ensure that all students have access to the courses and other academic resources they need to successfully pursue their academic goals and graduate on time.
- In particular, this initiative will ensure students, faculty, and staff with disabilities are not disadvantaged because of their disabilities.

*Embracing the California spirit: diverse, inclusive, entrepreneurial*

- The accessibility movement began here at Berkeley. In particular, this initiative will provide for the basic needs of our students, faculty, and staff with disabilities and allow them to fully participate in the Berkeley community.

#### Accomplishments FY19

- Successful campus rollout of Blackboard Ally, which automatically runs course materials through an accessibility checklist that looks for common accessibility issues.
- Doubled the campus enrollment in Siteimprove and worked with vendor to provide tools and training to all users.



Accomplishments FY19 *continued*

- Created a Do-It-Yourself (DIY) Accessibility Checklist for developers.
- Created an Open Berkeley widget that allows embedding of accessible, interactive data visualizations.
- Continued providing Web Access clinics for campus systems, applications, sites, and products.
- Held a Mobile App Accessibility Workshop for the One IT community.
- Partnered with Disability Access and Compliance (under the Vice Chancellor for Administration) to update the campus IT Accessibility Plan.

IT Priority 9: Diversity and Inclusion (D&I) Program

Integrate equity, inclusion, and diversity into all areas of IT on campus by actively engaging UC Berkeley’s IT community via new programs, training, and research, all underlaid by our campus principles of community.

Key Support for UC Berkeley’s Strategic Plan

*Embracing the California spirit: diverse, inclusive, entrepreneurial*

- Berkeley will create a healthy campus climate that ensures that students, staff, and faculty of all backgrounds feel safe, welcome, and included.



Accomplishments FY19

- Communication and community building on the ReIT initiative across the IT community.
- Superhero team of volunteer campus IT staff grouped suggestions from workshops into 15 tactics to inform and prioritize programmatic efforts.
- We strategically focused the annual One IT summit on diversity and inclusion; highlights were:
  - A panel discussion with UC and Stanford experts on D&I.
  - Held a presentation reviewing the work completed to date and encouraged people to join in the next phase.
  - The IST Action Team led an ally training to practice being allies in creating a more inclusive environment.

IT Priority 10: Professional Development

Support career growth for the One IT community through professional development opportunities that emphasize leadership, management, job exploration and the development of skills needed to facilitate, broker, and integrate IT solutions for the campus community.

Key Support for UC Berkeley’s Strategic Plan

*Embracing the California spirit: diverse, inclusive, entrepreneurial*

- Berkeley will promote career advancement for IT staff by facilitating and supporting greater mobility of staff between campus units and providing training programs on technology skills plus the interpersonal communication skills needed to succeed and grow in a professional environment.
- These new skills and opportunities will be a powerful engine of social mobility for an increasingly diverse and inclusive IT staff.

Accomplishments FY19

- Launched inaugural Lead From Where You Are (LFWYA) program to cultivate the leadership skills of IT professionals who demonstrate leadership potential.
- OCIO/IST participation in Performance Management Campus Pilot Program, emphasizing continuous conversations focused on engaging employees about work progress and professional development goals.
- Published comprehensive webpage dedicated to Professional Development on the Technology website.
- One IT Summit session (One IT Developing Professionally, Personally) focused on developing professional skills that are portable across jobs and duties. Professional development is the theme for IT Summit 2020: Envisioning a Bright Future.
- Revamped OCIO/IST Internal Onboarding program to increase employee engagement, performance, and retention.



Sustaining the IT Foundation

[technology.berkeley.edu/strategic-plan/priorities#G4](https://technology.berkeley.edu/strategic-plan/priorities#G4)

Goal 4 of our strategic plan is to sustain the IT foundation for campus faculty, staff, students, and alumni. Improve campus IT systems and infrastructure through innovation, sustainable funding, campus governance, and organizational evolution. The priorities described here support, and in many cases are dependencies for the success of, all the goals and strategies outlined in the One IT and campus strategic plans.

IT Priority 11: Widespread Deployment of Next Generation Wi-Fi

Improve the design of our Wi-Fi network and replace outdated equipment over the next several years to expand coverage for the campus; improve performance, stability, and reliability; improve the campus user experience; increase the efficacy of our Wi-Fi network; and better support teaching and learning and research.

Key Support for UC Berkeley’s Strategic Plan

*Berkeley empowers engaged thinkers and global citizens to change our world*

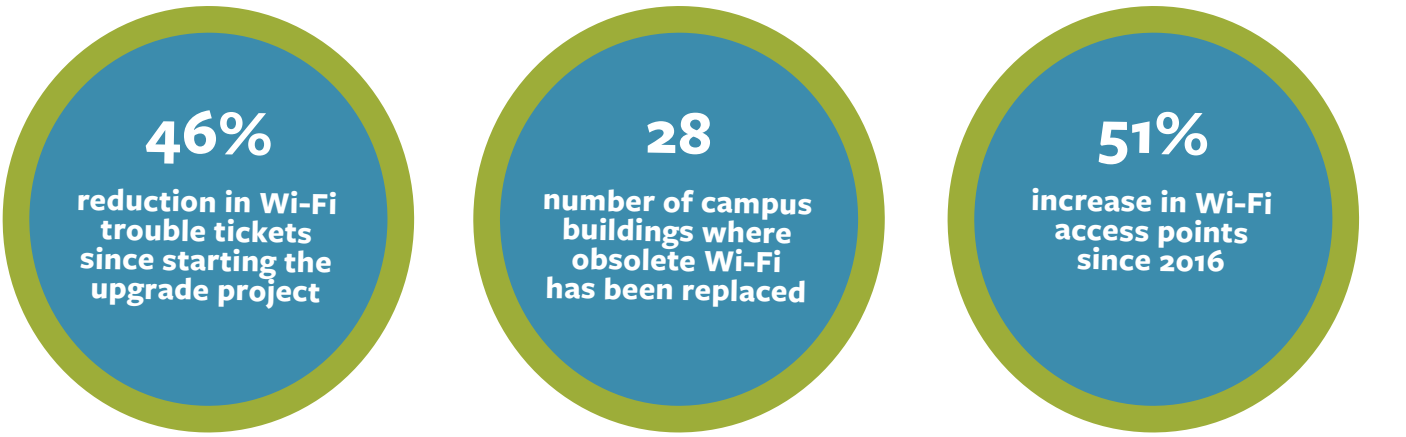
- This initiative will enhance the student experience here at Berkeley, ensure that Berkeley will be as well known for the quality of its student experience as it is for the excellence of its academic enterprise, and provide for the basic need for our students to learn and leverage technology in their courses to prepare them for 21st century professions.
- We have heard directly from ASUC student government that the availability of adequate and widespread Wi-Fi network coverage for the campus is essential for students and faculty on campus and is especially important to students who depend on campus Wi-Fi in order to participate in academic life on campus.

*Focusing on the good: innovative solutions for society’s great challenges*

- This initiative directly supports the theme of pioneering an inclusive approach to technical innovation. All network growth today is wireless. Whether deploying additional technical innovation in the classroom or in the research lab, a high-speed, pervasive, and state-of-the-art wireless network is now fundamental to faculty and researcher success.
- We have heard directly from the Academic Senate Committee on IT that the campus network is the highest priority service and the network today is central to the university’s mission. Plus CAPRA has said it agrees that sustaining the Wi-Fi network is a high priority.

Accomplishments FY19

- Achieved 25% of campus-wide next generation Wi-Fi coverage goal.
- Obsolete Wi-Fi replaced in 28 buildings.
- New Wi-Fi networks implemented in these major campus buildings in FY19: Li Ka Shing, Wurster, Birge, Leconte, Moffit, McCone. In addition, since July we have completed Law School, Haas School of Business, Doe Library, and Kroeber.



[view campus map of Wi-Fi upgrades](#)



IT Priority 12: bSecure: Enhance the Security of Campus Network and Applications

Enhance the campus security environment by replacing aging network (firewall and VPN) technologies, plus offering additional threat prevention and enhanced security services on campus networks.

Key Support for UC Berkeley’s Strategic Plan

Berkeley empowers engaged thinkers and global citizens to change our world

- This initiative is foundational to the success of everyone in our campus community as well as University friends and partners plus our many thousands of alumni. We need to ensure the security of our systems and data—which includes a great deal of data about all of them. If we do not, our credibility and their trust will erode and it will harm the Berkeley reputation/brand.
- This initiative supports enhancing the student experience and supports ongoing engagement and support from Berkeley’s alumni who will be “students for life.”

Focusing on the good: innovative solutions for society’s great challenges

- This initiative is also foundational to Berkeley pioneering an inclusive approach to technical innovation, artificial intelligence and big data. We know all too well that Berkeley is a prime target of the international hacker community. These groups are smart, inventive, persistent, automated, 24/7, and often well-funded as state- or industrial- sponsored espionage operations. We are expanding and have ambitions to expand our cutting-edge and world-leading research activities. We simply must ensure Berkeley’s research results and intellectual property are adequately secured from outside tampering or theft.

Accomplishments FY19

- Migrated all sensitive data systems to new bSecure firewall contexts and retired old Cisco firewall appliances.
- Conducted 30 and 60-day reviews with system owners.
- Implemented preemptive blocking of malicious internet traffic resulting in successfully blocking over 100,000 attacks per month since September 2018.
- Deployed new VPN with CalNet 2-Step integration.

IT Priority 13: UCPATH

Consolidate all the UC payroll and human resource systems into one to create a UC-wide shared services center that centralizes transactional benefits and payroll work.

Key Support for UC Berkeley’s Strategic Plan

Focusing on the good: innovative solutions for society’s great challenges

This initiative is foundational for faculty and staff at any university. State-of-the-art, performing, reliable, and full function HR and payroll systems are fundamental to the effective operation of the University and central to the unwritten covenant that exists between employer and employee.

People need to be paid on time and at the correct amount. Information about their employment needs to be maintained. Their personal information needs to be maintained accurately and securely.

The UCPATH go-live at Berkeley was a resounding success and helped set a new standard for implementation at the remaining UC locations.

One IT in Action

Collaborating teams: Enterprise Applications Admin IT; IST - Infrastructure Services (PCSSC); Central Human Resources; Berkeley Regional Services and more.

meet the people behind UCPATH

UCPATH Fact Sheet

helpful information about UCPATH at a glance

Accomplishments FY19

- Migrated a conversion and configuration - Seven conversions over 12 months. Each conversion included over 250 tasks covering: a) conversion prep activities, b) HCM and PPS snapshots, c) conversion external files, d) conversion validation, e) manual data clean up/manual corrections.
- Integration and campus system retrofitting - Completed 30 direct integrations with UCPATH. Retrofitted and cutover 61 Campus systems (including BFS, BCS, CalTime, BearBuy, Travel, etc.) utilizing real-time integration and synchronization between UCPATH and UC Berkeley systems for employee data utilizing APIs for employee, job, and position data.
- CalNet (IDM) and CalCard - CalNet retrofit to handle new HR system of record and near real-time provisioning of identity management systems. CalCard software retrofit so existing ID cards did not have to be replaced thus saving \$700,000 in implementation costs.
- Data Warehouse and CalAnswers - Retrofitted Data Warehouse data and CalAnswers financial reports with UCPATH compensation expenses. Delivered Cal Answers job data reports with combined legacy and UCPATH HR data enabling campus to view an employee’s data across both systems. Poised to deliver more reports in FY20.
- UCPATH jobs setup - Along with MFTs (managed file transfer) to and from UCPATH to Berkeley’s internal applications.
- Gaps and improvements - Created IT solutions for missing functionality in UCPATH (friendly names, readers and tutors, missing reports). Streamlined and automated graduate fee remission and Financial Aid administrative fee processes.
- Campus IT collaboration - The UCPATH project cultivated campus IT collaboration across technical and functional integration boundaries, brought together critical campus systems in an effort to replace a complex ERP system with minimal impact, given a tight timeline and a laundry list of implementation requirements.

One IT in Action

Collaborating teams: IST-Enterprise Data Warehouse; Cal Answers; UCPATH, Central Human Resources; Controller’s Office; Financial Planning and Analysis; Berkeley Regional Services

learn more about the Cal Answers/UCPATH implementation



Cal Answers Offers Insights into UCPATH

Through the collaborative efforts of multiple teams across campus, people managers and administrators are gaining valuable insights into UCPATH data via Cal Answers. Cal Answers is the enterprise reporting and analysis tool that they already rely on for financial, student, and research management information. Here’s what people are saying:

“Cal Answers is a critical reporting tool, and is the backbone behind our financial management and workforce planning responsibilities. All of the staff in our organization use some form of a Cal Answers report in their day-to-day work. The Finance and the HR Workforce Detail reports are the first place we go to obtain information, on-demand, that allows our staff, and the faculty we support, to make informed decisions at the UC Berkeley campus. With this year’s introduction of UCPATH, Cal Answers has been able to fill in some serious reporting gaps and improve visibility on the transactional data behind UCPATH. The Cal Answers development team, in particular, has been key to the success of the reporting tools. They regularly and actively engage with campus partners, and have played an important role in capturing the needs of the end users of Cal Answers to ensure that the reports that are developed and released to the campus will actually be useful.” — Henry Chan, Contracts and Grants Manager for the SHARE region



“Comparing [UCPATH reporting in Cal Answers] to BAIRS, it is much easier to load local data (employee IDs, job codes, orgs, etc.). In BAIRS, you’d need to import an excel file or a text file if the local data list was large. It was pretty limited in how much data it was able to accept. Cal Answers, you can copy and dump up to 10,000 entries. It’s got a nice performance upgrade, I haven’t had Cal Answers choke on large queries like BAIRS would often do. I’m using the dashboards more these days because there are more comprehensive pre-set filters you can use to get at the data you need.” — Jesse Arp, Central HR





### IT Priority 14: Cal1Card Technology Replacement

This was the first year of a 5-year project to replace the Cal1Card technology, beginning with RSSP systems for point of sale transactions and residence hall door access, and establishing a Cal1Card usage policy for the campus. Future years of the project will address increasing the security of the card technology itself, with impacts on many campus departments that utilize the Cal1Card for building access, attendance tracking, and more.

#### Key Support for UC Berkeley's Strategic Plan

*Berkeley empowers engaged thinkers and global citizens to change our world*

- This technology will support campus efforts to invest in flexible, accessible, and modern facilities.
- The technology will also allow the campus to automate and scale the management of student access to the doubling of student housing and go a long way to support students' basic need for housing.

*Embracing the California spirit: diverse, inclusive, entrepreneurial*

- Improving the Cal1Card technology will enable more automated ways of providing building access and support a safer, healthy campus for staff, students, and faculty.
- In addition, the upgrade will substantially improve security for the use of the card as the present obsolete technology is prone to compromise.

#### Accomplishments FY19

- Identified stakeholders from across campus.
- Completed requirements-gathering process.
- Held two full-day vendor demos. Ultimately, in spring 2019 RSSP cancelled the RFP without awarding a contract. A new RFP is expected to be posted and awarded in FY21.

### IT Priority 15: Active Directory and IST Infrastructure

Bring in additional campus AD environments behind the secure perimeter, providing a new and more secure way for system administrators to work across campus.

#### Key Support for UC Berkeley's Strategic Plan

*Berkeley empowers engaged thinkers and global citizens to change our world*

- Microsoft's Active Directory is the key underlying technology behind CalNet, the main identity and access control mechanism for all campus faculty, staff, and students. By providing a robust and secure environment in which students can connect, discover, engage, and reflect, we empower the thinkers of tomorrow to change the world while at the same time ensuring Berkeley's research results and intellectual property are adequately secured from outside tampering or theft.

*Focusing on the good: innovative solutions for society's great challenges*

- By moving all faculty, staff, and students to a single, secure AD organizational unit, managed by a team of professional administrators, we can further protect Berkeley's intellectual property, and facilitate the groundbreaking basic research that will create the innovations of tomorrow.

*Embracing the California spirit: diverse, inclusive, entrepreneurial*

- By providing a secure access mechanism for faculty, students, and staff to connect to the Berkeley network, and all the resources therein, we create a healthy and safe campus climate, where faculty can perform sensitive research, students can learn and grow, and staff can support the mission of the university.
- In order to create new opportunities for engagement, and new points of entry for campus stakeholders to easily engage with campus, we provide a centralized, secure and seamless authentication mechanism.

### Be Our Guest

CalNet Sponsored Guests is a new cloud-based service from the Information Security Office that allows campus employees to invite guests to access limited campus services, such as bCourses.

Now guests to campus can login using a social credential, such as a Google account. This new system is a big improvement from the past user experience as it provides the ability for guests to have multiple employee sponsors and they can easily be renewed after they expire. Through this service Sponsored Guests who are unable to use Active Directory can access web-based applications that have opted to allow guests.

### One IT in Action

Collaborating teams:  
Information Security  
Office; CalNet  
Sponsored Guests

[learn more about  
this service](#)





IT Priority 16: Secure Resources to Stabilize “At Risk” Common Good Services

Develop and implement a common approach using standard questions and data for assessing the quality of campus enterprise IT services. This information will be used to identify critical services deemed “at risk of failure” because they are operating with resources (people and funding) below a level acceptable to meet campus requirements and enable campus executives and IT governance groups to be informed about and address these risks appropriately.

Key Support for UC Berkeley’s Strategic Plan

Berkeley empowers engaged thinkers and global citizens to change our world

- This initiative is foundational to maintaining the efficiency and effectiveness of all members of the Berkeley campus community. When critical campus IT services do not perform, are not reliable, are not available, do not function correctly, and lack needed functionality, the productivity and effectiveness of students, faculty, and staff suffers. In addition, the Berkeley reputation/brand are damaged with friends of the University, patrons, and alumni.

Focusing on the good: innovative solutions for society’s great challenges

- This initiative is foundational to maintaining the efficiency and effectiveness of all members of the Berkeley campus community, including researchers and scholars. When critical campus IT services do not perform, are not reliable, are not available, do not function correctly, and lack needed functionality, productivity and effectiveness of students, faculty, and staff suffers. Our ability to successfully compete and deliver on grants is adversely affected. In addition, the Berkeley reputation/brand are damaged with funding agencies and collaborators across the country and around the world.

IT Priority 17: Technologies for the New Campus Campaign

Align and invest significantly in UDAR (University Development and Alumni Relations) data and technology to support the new Campus Campaign. The first priority will be on improved reporting, dashboards, and analytics for fundraising management and frontline fundraisers to enable the best focus of their efforts and direct engagement with alumni and supporters. Additional investments will be made in improved data capture, quality and exchange, as well as improved engagement tools and an ability to tie multiple fundraising tools together across campus.

Key Support for UC Berkeley’s Strategic Plan

Embracing the California spirit: diverse, inclusive, entrepreneurial

- The investment in technologies and data to support UDAR and unit fundraisers enables the strategic activity that Berkeley will significantly increase philanthropic support and donors will be inspired to support our mission and our combination of academic excellence and public service.
- Increased use of data and analytics will allow closer engagement so our connections with alumni can expand and deepen, reflecting that education is increasingly a lifelong experience. It will also enable deeper donor relationships so Berkeley can better create enduring and meaningful partnerships with our philanthropic supporters.

One IT in Action

Collaborating teams:  
Technology Program  
Office; Controller’s Office;  
IST Telecom; Information  
Security Office

Keeping Campus Credit Card Transactions Secure

The PCI Telephony Project team worked with 25 campus merchants to meet new Payment Card Industry Data Security Standard guidelines so the campus could continue to securely transmit and receive credit information over the telephone.

The project impacted many of the largest campus merchants including Athletics and Cal Performances, for whom the project team designed a new technical solution using T1 lines and firewalls so these two merchants could continue to generate millions of dollars of revenue for the campus as well as maintain excellent customer experiences for their patrons and donors. This new service will be launched at the end of March 2020. The team also helped 23 merchants cost effectively switch to using Centrex analog lines to transmit credit card information by voice over the telephone with minimal disruption to their business processes.

“IT is a strategic enabler for the campus teaching and research mission and supports critical business operations. Along with our IT Service Management efforts we are focusing on improving our ability to respond to campus emergencies.”

— Jenn Stringer, Assistant Vice Chancellor for IT and Deputy CIO



IT Priority 18: Strengthen IT Enterprise Operations

This is a new priority for FY20 to improve the resiliency of campus IT enterprise services in general, with a particular focus on ensuring we are prepared for future campus emergencies and mitigate “at risk services.”

SPOTLIGHT: SUSTAINING THE IT FOUNDATION

As demonstrated by the projects already highlighted in this report, almost everything we do is a collaborative effort between multiple teams and IT partners across campus. Here are a few more examples of how teams join forces and resources to get things done. These projects fall under Goal 4 as they help sustain the IT foundation for campus or improve campus IT systems and infrastructure.

Stabilizing and Securing the Campus Phone System

Last year, an upgrade on the Avaya phone system was completed providing our 10,000 users on campus with a more stable and secure phone system platform. The Avya upgrade also supports our ability to provide campus customers with voice over IP telephone services in the upcoming future. This work effort allowed us to start the migration of telephone lines to a new AT&T SIP solution. SIP (session initiation protocol) trunking is the methodology used to establish a voice call through the internet. Compared to traditional phone lines, SIP can be a more cost effective platform for organizations like Berkeley that use multiple phone lines.

The same collaborative team who worked on the phone system upgrade also worked together on the build-out of a local secondary data center infrastructure at Sutardja-Dai (MDC). In today’s environment, if we lose service in our data center we lose telephone service across campus. With the new AT&T SIP solution we will be able to automatically move our telephone service to the newly built data center without impacting the telephone service for all campus users. The new Avaya phone system provides users with reliability, stability, security, and reduces our operating cost by \$537,000/year.

One IT in Action

Collaborating IST teams: Telecom Voice; Telecom Network  
Operations; Data Platforms & Services (Windows, Linux &  
Database Administrators) ; and Infrastructure Services



One IT in Action

Collaborating teams:  
IST-Architecture,  
Platforms and  
Integration (API);  
Information Security  
Office (ISO); OCIO  
Strategic Technology  
Aquisition

[learn more  
about  
eSignatures](#)

Simplifying Business Processes with eSignatures

Early in 2019, IST launched an eSignature service for campus. The service platform is DocuSign, a cloud hosted service, that is approved by campus and the state of California to process legally binding signatures. DocuSign can be used on its own, for example to simply gather signatures from a single user or can be used in a more complex workflow that involves technical integrations between DocuSign and another application, for example a system of record.

Bringing eSignatures to campus has resulted in enormous time savings, substantial risk management benefits, and a very rapid return on investment versus paper processes and wet signatures (requiring people make a physical mark on documents). While there had been isolated eSignature users on campus for a while, each with their own eSignature product license and pricing, campus now has a service any campus department may use.

After only a few months of service, over 40 departments are using DocuSign with more departments coming onboard almost weekly. For example, departments are using DocuSign to process travel and entertainment reimbursements, reducing processing time from five days to one day. Another example is processing Merit Letters, reducing processing time from 30 days to one. DocuSign is used for new employee onboarding, processing donations to campus, and the list goes on.

“DocuSign has changed the way I do my work drastically in such a positive way. I was able to significantly decrease our turnaround time for requests, improve our administrative processes, and reduce our paper waste!”  
— Stephanie Dunn, Office of the CIO



We were able to bring this benefit to campus with the help of many fiscal supporters as well as the hard work of our security and strategic sourcing teams.

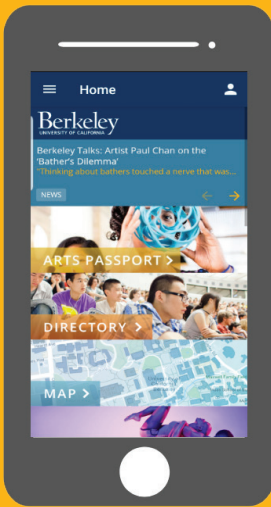
Mobile App Opens Door to Exploring Campus and More

The UC Berkeley Mobile App serves as an emerging platform for students, staff, and visitors to explore campus and discover opportunities. In support of this mission, the “Bk” app has been home to CalDay, the Summer Opportunities Fair, Study Abroad Fair, and the NOW Conference, with plans in the works for use at IT Summit 2020.

UC Berkeley Mobile has received grant funding from the Student Technology Fund to hire students to ensure the features of the UC Berkeley Mobile app are developed with students in mind.

In 2019, a Berkeley student team won Modo Lab’s Ideathon national grand prize of \$10,000 for their contribution, BearApetit. The app was also recognized with the Kurogo Conference Best Student Developed App award and the project team was recognized with the Chancellor’s Outstanding Staff Award (COSA). COSAs are presented to individual staff members and staff teams who demonstrate exceptional initiative to create significant positive impact on the UC Berkeley campus community.

In 2020, the team will focus its efforts on envisioning the role of our mobile app as a platform to support the Smart Campus initiative.



Kudos: Mobile App Team Receives COSA

This year the mobile app team was awarded the COSA. These awards are among the highest honors bestowed upon staff by the Chancellor.

Team members (photographed from left) include Ram Kapoor, Hulda Nelson, Sarah Fullerton, (Chancellor Christ), Anne Marie Richard, Jen Bellenger, John Hays, Zed Lopez, and Bill Allison (unable to attend).



Achieving a complex technology and change management process in ten weeks on the Berkeley campus calls for a team with expertise, innovation, and efficiency. This interdisciplinary team launched Berkeley’s mobile app in time for Cal Day 2018, helping newly admitted students and their families to easily navigate hundreds of events and create customized itineraries. The team identified the correct technology solution to address the need, employing students to help design a student-focused app; resolving numerous technical considerations internally and with a vendor; and creating an effective user interface that reflects Berkeley. The team has continued to expand the app as a platform for the campus, adding features, using analytics to assess functionality, and incorporating new content from campus units. Through the team’s continued collaboration, the mobile app has increased access to the campus, creating unique experiences not only for the campus community, but also for the public.

Cal Viz: How Tableau Is Helping Tell the Berkeley Story

Since launching Cal Viz (the Tableau Enterprise Server) last year, IST’s Enterprise Data Warehouse (EDW) team has partnered with many departments on campus to think through how they can leverage the tool for their needs, find solutions to problems they face, and to ultimately tell their story in a compelling way using data visualizations.

One great example is how the Office of Planning and Analysis is using the tool to reach viewers across the globe via the Our Berkeley website. The information they provide on the site is a distillation of the tens of thousands of stories playing out every day in Berkeley’s teaching, research, and public service. A range of data is shared with visuals that help viewers get a better understanding of who we are. Prospective students can learn useful information they need to make choices about attending Berkeley like affordability and the undergraduate cost of attendance which includes housing and food costs, trends in the number of Pell Grants Berkeley students have received over the past few years, details about the demographics of our student body, and even info about the post-graduation plans of our degree recipients. Of course, access to the website is open to the campus community as well as the general public, so the power of this information is reaching tens of thousands of viewers each year.

Other examples of how departments are leveraging Tableau include Student Affairs partnering with the IST-API Imagine team for better records management, or how University Development and Alumni Relations (UDAR) is leveraging the tool as they head into the public phase of the Campaign for Berkeley.

One IT in Action

Collaborating teams: IST-Enterprise Data Warehouse, Cal Viz; Student Affairs; University Development and Alumni Relations; Office of Planning and Analysis; Berkeley Law; IST-API Imagine Team

[learn more about Cal Vis](#)



# One IT: 2020 Vision

A few of our [IT leaders](#) share their goals and vision for the future.



“As the new CISO, I’ve worked with my team to develop a comprehensive approach for the future of cybersecurity at Berkeley using an industry best practice framework which helps us manage and reduce cybersecurity risk. Benefits of this framework include a structured format for identifying critical cybersecurity activities and prioritizing cybersecurity investments, along with a common language to communicate and address cybersecurity risk, both internally and externally.”  
— *Allison Henry, Chief Information Security Officer*



“This year we want to accelerate the Library’s ongoing effort to make the products of UC research and scholarship as freely and widely available as possible through providing enhanced and ubiquitous digital access to our scholarly resources. We plan to enhance, evolve, and expand the Library’s digital lifecycle and initiatives program in support of innovation and access for research, learning, teaching, as well as social and public good”  
— *Salwa Ismail, Associate University Librarian for Digital Initiatives and IT; Associate CIO*



“Analytics and Data-supported decision-making are priorities this year. We are continuing to engage with our community in developing a data practice that allows for collection, sharing and visualizing data across the law school to improve the student and alumni experience. We are working with our partners in EDW on growing the campus Tableau service to support this work.”  
— *Gabriel Gonzalez, CIO and Assistant Dean, Instructional and Information Technology and Services, School of Law*



“Last year, Enterprise Applications was formed as a combination of Administrative Information Technology and the Student Information Systems teams. With all of the expertise and dedicated staff in the unit, we are now well placed to best meet the needs of students, faculty, staff, and the rest of the UC Berkeley community. Next year will bring increased customer focus, with continuing student system work as well as many improvements to the administrative systems we use every day.”  
— *Jody Couch, Executive Director, Enterprise Applications*



“Our primary focus this year is ramping up our services and processes to be able to run at large-scale. With the explosive growth of enrollments in Engineering, Computer Science, and Data Science, we’ve had to rethink what it means to support these efforts, providing students, faculty, and administrators the tools that can keep up while still enhancing the student experience.”  
— *Eric Fraser, Director of IT and Assistant Dean, Berkeley Engineering*



“With our ReIT work now in an operational phase, we have been refining an annual timeline of activities to continue the momentum of our strategic plan going into the future. This includes our workshop in the spring, the vetting of new IT priorities for the next fiscal year by summer, and the release of an updated plan in the fall. This year’s key focus will be on strategic management -- managing and measuring progress towards realizing our four ReIT goals. Critical to this is the success of the 20 top priority initiatives for FY20. We will ensure that each of these key initiatives succeeds and contributes to the campus’ most important goals.”  
— *David Greenbaum, Director, Reimagining IT Strategic Plan*



“Part of my job is to be on the lookout for emerging technologies that can be transformative in helping the university run more smoothly, do things that previously seemed impossible, and lower the cost of operations. A few emerging technologies we are thinking about for 2020 include: Blockchain which can be used for immutable academic credentialing and records; Robotic Process Automation (RPA) to automate cross-systems data entry to improve transaction accuracy; Machine Learning (ML) embedded in services like Google/Box, and products we use like sensors that anticipate failure of expensive or critical equipment, software for security threat detection, and analytics to classify patterns of academic engagement. This list focuses on new technologies, but meaningful innovation begins with a deep understanding of the university’s desired strategic outcomes, and working backwards to identify opportunities to introduce new models combining people, processes and technology.”  
— *Bill Allison, Chief Technology Officer*



**Share Your Innovative Ideas**  
Please visit [cto.berkeley.edu/engage](https://cto.berkeley.edu/engage) where you can read more, and sign up for updates or get involved to share your ideas.

## Growing Our Community With Eyes Wide Open

Each year the One IT community continues to grow and evolve but remains ever focused on why the movement began back in 2014. Back then, the foundational goal was to bring improved collaboration and coordination across campus IT groups. Today, the success of several large-scale campus-wide projects shared in this report, building our ReIT strategic plan, and nurturing relationships to serve the needs of our campus has been the collective work of the 850+ IT professionals across campus who make up our community. This year as we move toward our 7th Annual IT Summit set for June 3, 2020 our theme is [Envisioning a Bright Future](#) and will focus on professional development. IT professional development is one of the top priorities we identified in our strategic plan for FY20, knowing that continuing to learn and grow is a critical part of any career nowadays but especially in the field of technology.



### 2019 One IT Events

- March 21: [One IT Spring Invitation at Haas](#)
- June 6: [One IT Summit 2019: Diversity & Inclusion for One IT](#)
- Oct. 22: [One IT Staff Appreciation](#)



More ways to get involved in the One IT community:







## **[technology.berkeley.edu/annual-report](https://technology.berkeley.edu/annual-report)**

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