As Berkeley heads into FY23, in-person instruction, research, and core operations on our campus spring back to life. However, as the COVID endemic evolves, we continue to look for ways to be agile and resilient in our future planning and day-to-day functions. Our FY23 strategic plan* reflects this by including IT departments' top operational and project priorities. These priorities further demonstrate the depth of the essential work performed by our IT professionals across the campus.

As you will see in the plan, we will further strengthen our cybersecurity posture this year, with nine departments focused on implementing cybersecurity policies under IS-3. Our community is again coming together to rally around Instructional Resilience to deliver effective and equitable learning experiences for our students and to help prepare Berkeley with a consistent strategy for an uncertain future. We will also focus on evaluating, migrating, or replacing various major campus systems and applications over the next several years. These highly impactful, substantial operational projects contribute to the Berkeley Campus Strategic Goals by empowering engaged thinkers and global citizens to change our world while addressing society's great challenges. . Together, the One IT community provides these foundational systems and support that power the university's mission.

Fiscal year 2023 also marks the final year of the current version of the One IT strategic planning process. Our five-year plan was born in 2017, realigned with the Campus Strategic Plan in 2018, and has served as a guiding light for IT services and support for the last five years. With all of the shifts in the last few years, from the way we work to the way we deliver instruction and beyond, we believe this is the perfect time to reflect on our process goals and priorities. To that end, we will be engaging the One IT community over the next year to develop an updated collaborative process that helps us showcase the power of what we do to support the campus. Stay tuned for more information about how to engage in this work!

We appreciate you taking the time to review and share feedback on our IT vision and proposed FY23 priorities. Please reach out to the Program Planning Group with any questions.

The One IT Strategic Plan Program Planning Group (PPG)
Pierre Chew, *Chief Technology Officer, Haas School of Business*
Shawna Dark, *Chief Academic Technology Officer and Executive Director of Research, Teaching, and Learning (RTL)*
Casey Hennig, *Interim One IT Program Manager*
Liz Marsh, *Executive Director, Strategy & Partnerships and Chief of Staff to the CIO*
Jenn Stringer, *Associate Vice Chancellor for IT, and Chief Information Officer*

*In FY23, we welcomed four new IT Departments to our plan: Computing, Data Science, and Society (CDSS), the Goldman School of Public Policy (GSPP), the School of Information, and the School of Social Welfare (SSW). We are excited to add these departments to our planning and process in the coming months and years.

ONE IT

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The One IT strategic plan outlines important goals and annual priorities for the campus IT community. These align with Berkeley's 10-year strategic plan and support the teaching, learning, and research mission of the University.

ONE IT Berkeley's IT professionals work together to provide the tools, data, and infrastructure the campus community needs to continue to grow as the world's greatest public research university.

One IT Goals to Support Campus Strategies

G1 Provide all students the essential tools and data they need to be engaged thinkers and global citizens.	G2 Develop the research cyberinfrastructure Berkeley needs to address society's great challenges and to share knowledge for the public good.	G3 Create a diverse and inclusive community of IT professionals who are trusted and strategic partners with the campus, alumni, and the public.

Berkeley's IT Foundation

G4 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. Support all One IT goals and campus strategies above.

FY23 One IT Top Priorities

GOAL 1: Provide all students the essential tools and data they need to be engaged thinkers and global citizens.

- **Instructional Resilience for In-Person and and Hybrid Teaching Environments (RTL)**
  - Hybrid Teaching Environments
  - Berkeley Law: Educational Resilience
  - Engineering IT: Instructional Services
  - Haas IT: Refresh of Curricular Planning Tool
  - I School IT: Instructional Resilience

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FY23 One IT Top Priorities

Goal 2: Develop the research cyberinfrastructure Berkeley needs to address society's great challenges and to share knowledge for the public good.

- **Improve Services for Researchers working with data**

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FY23 One IT Top Priorities

Goal 3: Create a diverse and inclusive community of IT professionals who are trusted and strategic partners with the campus, alumni, and the public.

- **Website & Third Party Platform Remediation**
- **Mature the IT Governance Model**

ONE IT

Our FY23 One IT Top Priorities

Goal 4: Sustain the IT foundation for campus faculty, staff, students, and alumni.

- **Campus-Wide Cybersecurity Implementation (ISO)**
  - Berkeley Law: Security, Privacy, Compliance
  - EH&S IT: Cybersecurity and IS-3 Compliance
  - GSPP: Cybersecurity and IS-3 Compliance
  - Haas IT: Implementation of the IS-3 Security Policy
  - I School IT: Information Security Program
  - L&S IT: IS3 Compliance and recommendation implementation
  - RAC IT: IS-3 Implementation
  - UDAR IT: IS-3 Implementation

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Our FY23 One IT Top Priorities

Goal 4 continued…

- Network User Experience Improvement
- Data Center and Cloud Services Road Map
- Data Exchange Project
- One IT Strategic Plan & Process Revision

Major Campus Systems Enhancements:

- Comprehensive Curriculum Management System
- EPIC Implementation
- Gender Recognition/Lived Name Implementation
- Work-Study Management System

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One IT Strategic Goal 1

Provide all students the essential tools and data they need
to be engaged thinkers and global citizens.

Instructional Resilience for In-Person and Hybrid Teaching Environments

In coordination with the RTL Executive Advisory Group and campus stakeholders (Berkeley Law, Engineering, Haas, and iSchool), develop a design based plan to identify the next iteration of instructional resilience for remote, in-class, and hybrid instruction.

FY23 Key Measures of Success:

- A common definition for Instructional Resilience across UE, Law, Engineering, Haas, and iSchool

- Document trends, commonalities, and gaps of instructional resilience across all units based on surveys, focus groups, and 1:1 discussions with users

- Initiate one design-based project tackling a component of Instructional Resilience based on findings from previous measure of success

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Berkeley Law: Educational Resilience

Support our Law school students, faculty and leadership in all aspects of remote, hybrid and in-person learning. Refine procedures for staying flexible in supporting teaching as guidelines around mandates change and are removed.

FY23 Key Measures of Success:

- We upgrade two classrooms to continue to increase hybrid and recording capacity

- We were able to effectively deliver the classroom/educational/instructional adaptations as decided by our leadership

- Positive or constructive feedback on difficulties from students and student-facing departments at the end for the year. Feedback from our front facing IT service teams about their work and experience

Engineering IT: Instructional Services

Increase support for instructional services for large scale, including DataHub, Computer-based Testing, and bCourses.

FY23 Key Measures of Success:

- Implemented a multi-node AWS cloud infrastructure for the Computer-based Testing pilot program for scalability, and instructional resilience.

- Increased the instructional adoption of DataHub through strategic partnership with CDSS, and RTL.

- Increased the adoption of bCourses functionality by identifying opportunities for instructional integration.

Haas IT: Refresh Academic Planning Tools

Haas has built a series of academic planning and instruction tools in house that is in need of a refresh.

FY23 Key Measures of Success:

- Academic Planning and Instruction team can meet business requirements to provide 2 year projections on curricular planning per the new Unit 18 agreement

- Increased accessibility to information because of enhanced budget estimate process

- Improved user experience for the curricular planning and lecturer appointment processes

I School IT: Instructional Resilience

Deliver tools and services allowing instructors and students to pivot quickly between remote, hybrid, and in-person modalities as circumstances dictate. This effort is currently focused on building out/refining Zoom Rooms capability in our classrooms/meeting spaces.

FY23 Key Measures of Success:

- Instruction can be quickly and easily switched between in-person, hybrid, and remote modalities as circumstances dictate.

- Faculty are able to host hybrid classes/meetings in our Zoom Rooms-enabled classrooms on a self-service basis.

- Remote students in hybrid sessions receive an equitable classroom experience (e.g., the audio quality is similar to what they would experience if attending a fully in-person or fully remote class).

One IT Strategic Goal 2

Develop the research cyberinfrastructure Berkeley needs to address society's great challenges and to share knowledge for the public good.

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Improve Services for Researchers working with data

In collaboration with bIT (Storage & Backup, bConnected teams), develop a framework and methodology for working with researchers to understand and express their data storage needs. Together, these tools will provide a systematic way to characterize a research data use case and its requirements, allowing for "one conversation held multiple times" (rather than a series of disparate conversations) and moving forward the campus storage strategy effort.

FY23 Key Measures of Success:

- Identify a set of fundamental research data storage characteristics

- Develop a mechanism for quantifying the importance of each storage characteristic to help researchers select among storage options.

- Align with and support the data storage options dashboard currently being developed by the bConnected team.

- Develop a requirements gathering template that produces a systematic and sharable characterization of the risks and requirements for research data storage.

- Provide input into the development of storage and backup services, both on campus and system-wide (e.g., UC Research Data Backup RFP).

One IT Strategic Goal 3

Create a diverse and inclusive community of IT professionals who are trusted and strategic partners with the campus, alumni, and the public.

Website & Third Party Platform Remediation

Working with campus stakeholders to further evolve the institution's posture in relation to accessibility of all digital tools, both existing and new tools, as well as content developed internally or acquired externally.

FY23 Key Measures of Success:

- Complete hiring for the project team

- Finalize plan and timeline

  - Increased awareness about remediation efforts and scope

  - Top 200 sites identified, assessed, and owners notified

  - Outreach and remediation completed for 30% of top sites

  - Develop training materials and requirements for web developers, administrators, and content contributors

  - Enroll all Berkeley sites into Siteimprove and notify owners

  - Develop escalation process for sites within the top 200

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Mature the IT Governance Model

Continue to mature and grow the new campus IT Governance model. Stand up additional committees as needed. Leverage the model to move high impact IT projects through the campus review and funding approval processes.

FY23 Key Measures of Success:

- Stand up the Data Governance committee

- Continue to develop and formalize IT governance processes and policies

- Create a robust communications plan to better inform the campus community about how to engage with IT governance

- Develop and present a deep dive campuswide IT spend analysis

One IT Strategic Goal 4

Sustain the IT foundation for campus faculty, staff, students, and alumni.

Cybersecurity Implementation

Continue to roll out IS-3 Unit Project across campus, operationalize onboarding process, initiate annual review for pilot Units, ongoing UISL engagement.

FY23 Key Measures of Success:

- Onboarding is complete for all units designated as high-risk

- First annual review complete for early adopters

- Onboarding process established for high and low risk units

- Ongoing annual review process developed

- Program of regular communication with Init Information Security Leads (UISLs) is in place

Berkeley Law: Security, Privacy, Compliance

Work through recommendations from IS-3 review, Complete Law-school wide Information Security Management Program reviews.

FY23 Key Measures of Success:

- Updated Socreg records and documentation for all covered systems and services (including cloud services)

- A process in place for the review and updating of systems annually and the intake of new services

- Doing fewer things better

Environment, Health & Safety IT: Cybersecurity and IS-3 Compliance

Continue work to bring EH&S systems, applications into compliance with IS3 standards, and begin to evaluate processes for vulnerabilities.

FY23 Key Measures of Success:

- Reducing response time to known vulnerabilities (e.g. Integrate container vulnerability scans in operations)

- Evaluating existing processes and determine approach for bringing into compliance

- Provide appropriate P4 storage and remote access for office resources

Goldman School of Public Policy: Cybersecurity and IS-3 Compliance

Continue work to bring GSPP systems, applications into compliance with IS3 standards, and begin to evaluate processes for vulnerabilities.

FY23 Key Measures of Success:

- Lesser volume of ISO security vulnerability notifications.

- 50% of GSPP systems and applications are placed into virtual environments (or alternative managed environments).

- Have a reliable data storage solution (since Box and Google Drive are being phased out).

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Haas IT: Implementation of the IS-3 Security Policy

Department by department audit of cybersecurity practices to ensure compliance with the IS-3 policy.

FY23 Key Measures of Success:

- Fulfill obligations with campus to conduct an internal audit of business units for IS3 compliance

- Identify a solution to move to a P4 certified data storage option that also meets business needs

- Increase Haas staff's awareness of data protection and improve processes to be aligned with IS3 policies

I School IT: Information Security Program

Create an information security program allowing key stakeholders to identify/manage risk and keeping our practices aligned with applicable laws, regulations, and university policies.

FY23 Key Measures of Success:

- A program is in place allowing us to regularly assess our compliance with applicable laws, regulations, and policies (including IS-3).

- Key stakeholders have a thorough understanding of the cyber risks we face and are able to factor these into their decisions.

- All members of our community understand their roles and responsibilities with respect to cybersecurity.

Letters & Sciences IT: IS3 Compliance and recommendation implementation

Work through recommendations from IS-3 review for LSCore. Provide consultative assistance to LS units outside of the LSCore org regarding IS3.

FY23 Key Measures of Success:

- Roles and responsibilities are established and IT activities are viewed through the lens of IS3 compliance and risk mitigation to the campus by all responsible parties

- Information Security Management Program unit security & plan is created, communicated, and yearly review periods are established

- All mobile devices within LS Core are encrypted

Research Administration and Compliance: IS-3 Implementation

Improve departmental information security by implementing recommendations from the Information Security Office.

FY23 Key Measures of Success:

- We have implemented the first 3 of the 5 recommendations in our IS-3 Unit Assessment.

- Working with AVC-RAC, we have sent out at least one message/announcement to critical stakeholders.

University Development and Alumni Relations IT: IS-3 Implementation

Work with Information Security Office to audit and document UDAR's compliance.

FY23 Key Measures of Success:

- Assess data protection and availability levels for fundraising related applications (CADS and others) with direction from security office

- With guidance from campus security office implement recommended procedures and processes for level 4 data security compliance

- Review and evaluate department data policies with AVC, Director of Data Quality and Management (DQM) and other stakeholders

Network User Experience Improvement

Provide a broader and clearer range of connectivity options for campus users. Modernize and improve the stability, usability, capability, and capacity of various network services including Wi-Fi Infrastructure, Wi-Fi Device Connectivity Services, Campus Firewall and VPN, and Connectivity for International Students.

FY23 Key Measures of Success:

- Improvement in user connected device roaming performance

- Deliver PSK IOT Wifi service with device registry that maps to individual CalNetIDs

- Fully abate AirBears2 SSID, and all remaining CISCO wireless access points

- Reduction of support calls for help with Wi-Fi Keys and problems accessing Wi-Fi

- Reduction of connected device counts on CalVisitor

Data Center and Cloud Services Roadmap Implementation

Develop concrete next steps for the evolution of on-premise server rooms across campus, including data center colocation and local/edge server rooms, and a detailed implementation plan for campus system utilization of the public cloud.

FY23 Key Measures of Success:

- Have v1 of the campus (proposed) computational infrastructure roadmap delivered.

- Have identified a surge option for Warren Hall and can actively onboard high-power dense research computing to a new location in the first half of FY23

- Have established target colo facilities for future workloads

- Have developed an accepted financial and incentives model for covering campus off-site hosting costs

Data Exchange Project

Implement a comprehensive data integration platform that simplifies and expedites data interchanges from multiple auxiliary systems into the alumni/donor system of record (CADS).

FY23 Key Measures of Success:

- Implementation of new interfaces in just a few weeks instead of in months, with our limiting factor being vendor sophistication rather than UDAR capabilities

- High impact data from across campus can be prioritized and stored in CADS - events, communications, volunteers, etc.

- Streamlined processes that allow UDAR to work through 10x as much imported data within a year

- Clear data use guidelines and definitions for Berkeley Advancement as a foundation for shared language and data culture

One IT Strategic Plan & Process Revision

In collaboration with One IT Leadership, reshape the IT strategic planning process to determine the direction of IT services and support for the Berkeley campus over the next three to five years. The plan will continue to focus on building an agile and resilient IT strategy while analyzing the best course of action to reach our collective priorities.

FY23 Key Measures of Success:

- Engage the One IT community in reenvisioning a new campus strategic planning process and plan to align and coordinate common IT priorities and goals

- Identify new programs and activities to foster collaboration across the One IT community

- Develop outreach strategies to highlight bIT service offerings that could provide value to smaller campus IT departments

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Major Campus Systems Enhancements

Various service management systems and/or applications are being evaluated, migrated, or replaced over the next several years. For FY23, we wish to highlight these significant enterprise projects and the departments and staff that make them possible. The behind-the-scenes work impacts and shapes the IT experience for the Berkeley campus community.

These substantial operational projects each contribute to the Berkeley Campus Strategic Goals of **empowering engaged thinkers and global citizens to change our world** while simultaneously **addressing society's great challenges.** The One IT community comes together to **embrace the California spirit: diverse, inclusive, entrepreneurial** by providing the foundational systems and support that drive the mission of the university.

Comprehensive Curriculum Management System

The current homegrown Comprehensive Curriculum Management System (CCMS) is not able to meet the evolving needs of the university, which were exacerbated by the pandemic. Students, parents, and faculty are all impacted. The first effort will consist of developing a budget estimate and submitting to IT Governance for approval.

FY23 Key Measures of Success:

- Procurement of a transparent, integrated system to effectively manage the full suite of curriculum development processes for undergraduate and graduate curricula.

- Initial change management work/sign off across campus partnerships

- End to end business process review and fit/gap analysis

- MVP implementation/integration (TBD) initially proposed for Fall 2023

EPIC Implementation

Work with UC-wide implementation team to implement Epic (as the primary EHR system for Berkeley) as a replacement to PnC, Systoc, and EyeCare. This will be a significant multi-year migration project impacting nearly every department and business unit at UHS and the Optometry Clinic. Will require close partnership with a UC Medical Center.

FY23 Key Measures of Success:

- Identified a UC Medical Center hosting partner (Aug 2022)

- Quantified the one-time implementation and 5 year operating costs (Sept 2022)

- Identified and secured all necessary funding (Sept 2022)

- On-boarded an experienced Epic Implementation Lead and started our project implementation planning (Oct 2022)

- Working closely with our Medical Center partner, we've kicked off the Epic Implementation project with the goal to "go live" Summer 2024 (earlier for Optometry)

Gender Recognition/Lived Name Implementation

Engage with project leadership and Berkeley IT to organize & engage resources in support of campus efforts to implement new policies in support of gender recognition and lived names that affect nearly all campus applications and data services.

FY23 Key Measures of Success:

- Effective project management, governance and engagement structures in place

- Roadmap for technical implementation completion by 12/23

- Campus data definitions, hierarchies and flows documented and managed

- Portfolio of affected systems prioritized and managed

- Working solutions in place in priority systems

Work Study Management System

The existing system was built with a robust design to meet the complex needs of UC Berkeley and serves nearly 3,000 student employees with significant financial need, 80 off and on campus employers, and 700 employer users; it is destined to be sunsetted due to the urgent need to upgrade the underlying technology and user interface. Initial internal research suggests that Work Study vendor options are lacking. The SIS team, with campus partner input, also performed a high-level fit/gap analysis which has revealed that leveraging delivered Campus Solutions functionality has substantial gaps requiring significant customizations to meet the existing need. Therefore, prioritization and funding for a WSMS Replacement project is essential to do more research and provide a final assessment.

FY23 Key Measures of Success:

- Identify and connect key stakeholders

- Create a project charter with a phased approach

- Investigate vendor space and internal applications and capacity

- Identify a path forward/ minimally viable product

- Begin implementation

Thank you for your feedback!

Links and resources for more information:

- Submit your comments and feedback on strategic campus IT priorities via t**his Google form**.

- View the **top Departmental priorities for FY23**.

- See the current **One IT Strategic Plan** with FY22 priorities.

- Read **Berkeley's 10-year strategic plan**.

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