

Berkeley PUSHES THE BOUNDARIES OF KNOWLEDGE,
CHALLENGES CONVENTION AND EXPANDS OPPORTUNITY
TO CREATE THE LEADERS OF TOMORROW.

ONE^{IT} A community of IT professionals who work together to provide the tools, data, and infrastructure the campus needs to continue to grow as the world's greatest public research university.

Key Strategies from Berkeley's 10-Year Vision

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

Berkeley focuses on the good to address society's great challenges.

Berkeley embraces the California spirit: diverse, inclusive, entrepreneurial.

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 technology infrastructure needed 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.

IT Priority Initiatives for FY 24:

- Next-Generation Classroom Technology
- Support Collaboration and Undergraduate Research on the DataHub
- Enhance Printing Support for Students
- Update Library Student Technology Services

IT Priority Initiatives for FY 24:

- Improve Services for Researchers Working with Data
- Support Growth in Computation for Research

IT Priority Initiatives for FY 24:

- Expand Digital Accessibility
- Gender Recognition and Lived Name Policy
- Berkeley IT Culture Champions

Campus Foundational IT Priorities

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.

IT Priority Initiatives for FY 24:

- Data Center and Colocation*
- Network User Experience Improvement
- Berkeley Desktop and Security Improvements*
- Information Security Policy (IS-3)
- IT Recovery (IS-12)
- Epic Implementation
- Improve Campus Safety Technology

*THESE ITEMS DEPENDENT ON CAMPUS FUNDING SUPPORT



One IT Strategic Goal 1

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

Next-Generation Classroom Technology

Enrich the student experience and enhance future classroom instruction with improved A/V functionality, enhanced instructor usability, and flexibility for lecture-based and active learning environments that are responsive and support collaboration and interdisciplinary work. **Lead: Research, Teaching, and Learning**

Key Measures of Success

- Updated classroom A/V designs for small (50 or fewer) and large classrooms developed using metrics and feedback from the last two years; this will build on the existing strategy of classroom refresh and course capture expansion to enhance general assignment (GA) learning spaces.
- Two or three A/V system templates developed that are publicly accessible based on departmental space consultations and the updated classroom A/V designs for general consumption; this includes a non-technical description of the system and functionality, a sample design drawing, and a sample parts list that will enable other campus departments' ability to enhance their learning spaces.
- A Community of Practice created around supporting technology in learning spaces to support departmental staff, reduce duplication of work, and build better practices.

Support Collaboration & Undergraduate Research on the DataHub

Support research and foster community around Berkeley's JupyterHub instance (DataHub), research, and technology by launching a pilot program intended to explore the capabilities and resources needed. Enable instructors or group leads to build more engaging assignments, leverage new teaching methodologies, and allow students to work in shared computing environments (similar to Google Suite) by developing Real-time Collaboration (RTC) and shared accounts within DataHub. Lessons from the pilot will be incorporated before expanding the program more broadly. **Lead: Computing, Data Science, and Society | Partner: Research, Teaching, and Learning**

Key Measures of Success

- bCourse groups used to define RTC authorization and help with general course or group resource management created and deployed.
- An instructor or group lead identified to test the feature and RTC deployed on a hub for an academic term.
- Resolvable issues or showstoppers identified, documented, and resolved by the Jupyter developer teams.
- RTC deployed on multiple hubs before end-of-year, after identified technical and security constraints are resolved.

**These items are dependent on Campus Funding Support*

Enhance Printing Support for Students

Provide students with expanded access to printing by implementing self-service print kiosks across campus and maintaining services for student printing in the Library and the Law School. **Co-Leads: Berkeley IT - Campus IT Experience (Student Affairs IT) and Library IT**

Key Measures of Success

- Ten to twelve self-service printing kiosks implemented in campus locations with a high volume of students.
- Support of the Pharos printing service for students in all Library locations and the Law Library by transitioning the service from Student Affairs IT to the Library.

Update Library Student Technology Services

Ensure continuity of technology services (computers, printers, scanners, microfilm machines, etc.) in all library locations and improve the user experience based on available services as space changes are implemented.

Lead: Library IT

Key Measures of Success

- Technology updates to reduce, remove, or redistribute technology equipment completed based on usage and need at various Library locations controlled by Library mergers and updated location hours.
- Staff computing devices migrated to new locations dependent on long-term space plans.
- An accurate and updated inventory of all the Library technology devices in use and devices decommissioned completed during these mergers and changes.



One IT Strategic Goal 2

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

Improve Services for Researchers Working with Data

Establish a common framework and methodology to understand storage characteristics and assess risk to research data, which allows both campus and investigators to place a value on that data, and for "one conversation held multiple times" (rather than a series of disparate conversations). Ultimately this will enable us to develop a campus storage strategy. **Lead: Research, Teaching, and Learning | Partners: Berkeley IT - Campus IT Experience; and Berkeley IT - Campus IT Infrastructure**

**These items are dependent on Campus Funding Support*

Key Measures of Success

- Complete and implement a common framework and methodology.
- Conversations around research data risk and storage needs simplified to reduce the time for all parties to get to a solution.
- Information collected used to inform campus storage strategy planning.

Support Growth in Computation for Research

Develop ways to leverage common resources to enable researchers in the College of Engineering to effectively plan, procure, and access computational resources, including traditional High-Performance Clusters (HPC), GPU computing, and access to tools such as DataHub. This project will serve as a blueprint for overall campus goals in power planning, as well as the Data Center Evolution Initiative. **Lead: Engineering IT | Partners: Berkeley IT - Campus IT Infrastructure; Berkeley IT - Strategy & Partnerships; Computing, Data Science, and Society; and Research, Teaching, and Learning**

Key Measures of Success

- Increased use of common tools and services, including Savio, DataHub, and cloud providers.
- An effective and simplified governance for researchers to select the best resources to meet their research computational needs.
- Increased demand for GPUs by researchers is met while balancing energy constraints.



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.

Expand Digital Accessibility

The Digital Accessibility Program fosters inclusivity, ensures legal compliance, and enhances the digital experience for the campus community by pursuing work to meet WCAG Standards and accessibility policies; ensuring adherence to the Department of Justice consent decree obligations for publically available audio, video, and websites on the berkeley.edu domain and its subdomains; developing reporting; conducting training; and meeting auditor recommendations. **Lead: Berkeley IT - Campus IT Experience | Partners: Berkeley Law IT; Letters & Science IT; Cal Performances; and University Development and Alumni Relations**

Key Measures of Success

- FY24 Consent Decree deadlines met, including providing training, guidance, and reporting as well as supporting the adoption of recommendations from its own evaluations and those of the external auditor.
- Content owners and contributors at UC Berkeley have made their publicly available audio and video

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published since Dec. 2022 conform to WCAG 2.0 AA by Sept. 2, 2023.

- Content owners and contributors on berkeley.edu domain and subdomains have ensured they are applying training, evaluation, plus remediation guidance and support to ensure their websites are conformant to WCAG 2.0 AA by June 2, 2024.

Gender Recognition & Lived Name Policy

Ensure the ability to indicate one's lived name and select from appropriately representative gender options — woman, man, and nonbinary — on university-issued documents and information systems, and create an efficient process for current employees and UC affiliates to retroactively amend their gender designations and lived names on university-issued documents, including eligible academic documents and in information systems. **Lead:** *Berkeley IT - Campus Applications & Data | Partners: Berkeley IT - Campus IT Experience (Student Affairs IT); Berkeley IT - Information Security Office; Engineering IT; Summer Sessions, Study Abroad, Lifelong Learning, and Extension; and University Development and Alumni Relations*

Key Measures of Success

- All university information systems have at least three equally recognized gender options — woman, man, and nonbinary.
- Any individual entering into an academic or professional relationship with the UC can indicate a lived name to be used in the UC system in all settings and situations that do not require a person's legal name.
- An efficient process is in place for current students, faculty, and staff, and for UC alumni and affiliates, to retroactively amend their gender designations and lived names on university-issued documents, including eligible academic documents, and in information systems.

Berkeley IT Culture Champions

Advance Berkeley IT DEIB+ work forward by developing and implementing a program to create a team of advocates, co-conspirators, and interns that will learn the meaning and foundations of DEIB+, help create a curriculum and training specific to their unit, and implement skills and techniques to foster a diverse community where all are welcomed. **Lead:** *Berkeley IT - People, Performance & Culture*

Key Measures of Success

- Unit-specific DEIB+ projects developed and implemented.
- Frameworks to support consistent communication between interns, intern supervisors, Action Team, and Berkeley IT Executive Leadership created.
- Models to increase collaboration across units and teams and encourage organizational culture shifts and modeling of new systems through a DEIB+ lens developed.

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One IT Strategic Goal 4

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

Data Center Evolution*

Implement short and medium-term solutions to ensure Berkeley can accommodate growing research computing demands linked to interdisciplinary trends (such as the rise of data science and the explosion of computational work). Continue to attract and retain faculty researchers and mitigate concerns about the rapidly increasing cost of power and capacity constraints within the Earl Warren Hall Data Center. This project is critical to our ongoing work to support research on Campus. **Co-Leads:** *Berkeley IT - Campus IT Infrastructure and Berkeley IT - Strategy & Partnerships* | **Partners:** *Berkeley IT - Campus IT Infrastructure; Berkeley Law IT; Berkeley Public Health; Computing, Data Science and Society, Research, Teaching, and Learning (Research IT)*

Key Measures of Success

- Usable power capacity in Earl Warren Hall increased by 250kW.
- Off-site colocation provider selected and work to build out networking and related security in the facility started.
- Servers located in Earl Warren Hall and on campus moved or created virtually in bCloud.
- Preparatory work to move bCloud (which includes centrally managed administrative systems) to the Public Cloud (AWS) completed.

Network User Experience Improvement

Support access to information, online learning, collaboration, administrative efficiency, innovation, research, and student engagement by continuing to modernize and improve the stability, usability, capability, and capacity of various network services, including Core and Building networking, Wi-Fi Infrastructure, Wi-Fi Device Connectivity, Campus Firewall, and Campus VPN. **Lead:** *Berkeley IT - Campus IT Infrastructure* | **Partners:** *Berkeley IT - Campus Experience (Student Affairs IT); Research, Teaching, and Learning*

Key Measures of Success

- Core network upgraded to 100Gb/s, with 100Gb/s in prioritized buildings.
- Wi-Fi systems architecture modified to increase Wi-Fi bandwidth, scalability, and resiliency.
- Wi-Fi upgraded and maintained by redesigning, recabling, and replacing equipment to address performance issues and aging equipment.

**These items are dependent on Campus Funding Support*

Berkeley Desktop Improvements

Identify and implement improvements that maximize the adoption of Berkeley Desktop by enhancing endpoint user experience and security (Endpoint Security Detection & Response (EDR))* , and streamlining user support.

Co-leads: *Berkeley IT - Campus IT Experience; Berkeley IT - Campus IT Infrastructure; and Berkeley IT - Information Security Office*

Key Measures of Success

- Security for Berkeley Desktop users increased by adding disk encryption capability.
- Usability and user experience options identified to improve the Berkeley Desktop.
- Processes and workflows developed and implemented to provide clearer and more streamlined procurement and provisioning, including guidelines that increase adoption of the Berkeley Desktop and enable the campus to continue to obtain risk insurance.
- Endpoint Detection & Response Software rolled out to address IS-3 security requirements.

Information Security Policy (IS-3) Implementation

Continue to integrate UC's Electronic Information Security Policy (IS-3) requirements and principles into Berkeley's existing information security program by increasing awareness of roles and responsibilities and implementing changes to IT systems and procedures across a broad set of campus units to protect sensitive data, comply with regulations, plus safeguard intellectual property and research integrity. **Lead:** *Berkeley IT - Information Security Office* | **Partners:** *Berkeley IT - Campus IT Infrastructure; Berkeley Law IT; Berkeley Public Health; Computing, Data Science, and Society: I School; Environment, Health & Safety IT; Facilities Services IT; Haas Technology Solutions; Letters & Science IT; Library IT; Social Welfare; Summer Sessions, Study Abroad, Lifelong Learning, and Extension; University Development and Alumni Relations; Vice Chancellor Research Office*

Key Measures of Success

- Initial onboarding and required reviews of IS-3 Implementation completed (as needed/per partner).
- Recommendations from IS-3 onboarding and/or reviews addressed and any Unit Information Security Plan reviews completed (as needed/per partner).
- Continued iterative implementation and demonstrated incremental improvement of compliance with IS-3 policies in services and systems.
- Ongoing rollout of operational Unit review schedule and annual metrics completed (at the campus program level).

**These items are dependent on Campus Funding Support*

IT Recovery (IS-12)

Ensure campus departments and units have appropriate resources and plans in place to recover institutional information and IT resources in the event of an unavoidable or unforeseen disaster, whether natural or human-made. **Lead: Berkeley IT - Campus IT Infrastructure** | **Partners: Berkeley Law IT; Berkeley IT - Campus Applications & Data; Computing, Data Science, and Society: I School; Environmental Health & Safety; Facilities Services IT; Optometry IT; School of Social Welfare; Summer Sessions, Study Abroad, Lifelong Learning, and Extension; University Development and Alumni Relations; Vice Chancellor Research Office**

Key Measures of Success

- Onboarding of all units surveyed between Feb. 2022 and June 2023 completed.
- Ongoing operational and exception processes finalized.
- Annual testing and ongoing operations have begun.

Medical Record System Implementation

Improve operational efficiencies, maintain compliance, decrease the costs of patient care, and securely share patient charts with other providers by moving to Epic electronic medical record system (EMR) instances at UC Davis Health Center and UCSF. **Co-Leads: University Health Services IT and Optometry IT**

Key Measures of Success

- UCHealth Hosting Partners established.
- One-time and ongoing project costs and secure funding identified.
- Projects launched before the end of 2023.

Improve Campus Safety Technologies

Achieve a vision of safety in which all members of the community feel welcomed, respected, and protected from harm. Several One IT Partners have priorities to improve campus technology systems that work to increase community safety. As part of our commitment to campus and community safety, multiple systems and/or applications are being evaluated, migrated, or replaced over the next several years. **Lead: Berkeley IT - Campus IT Infrastructure** | **Partners: Office of Ethics, Risk and Compliance Services; Environment, Health & Safety IT**

Key Measures of Success

- CITI - Changes to building security access and security video systems implemented that enable effective and efficient management of these campus physical security systems.
- CITI - Network and communications infrastructure, including pathway, fiber, cabling, and equipment necessary to provide modern, secure, robust services executed.

**These items are dependent on Campus Funding Support*

- OERCS - Enhancements to the current Everbridge "Warn Me" emergency notification communications platform completed to increase "opt-in" capabilities and review mandatory acceptance of Warn Me Notifications.
- EH&S - Core applications that support campus safety programs with Risk and Safety Solutions (UCOP) integrated to reduce duplicative effort.
- CITI - Map and ensure the reliable functioning of Campus Blue Light Emergency Phones.

The following 32 campus units have shared their top department IT-related priorities and are helping to lead One IT work on campus. See all priorities beginning on page 10.

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|---|---|
| 1. Berkeley IT - Business Operations | 18. Haas Technology Solutions |
| 2. Berkeley IT - Campus Applications & Data | 19. Letters & Science IT (L&S) |
| 3. Berkeley IT - Campus IT Experience (<i>including Student Affairs IT</i>) | 20. Library IT |
| 4. Berkeley IT - Campus IT Infrastructure | 21. Office of Ethics, Risk and Compliance Services |
| 5. Berkeley IT - Information Security Office | 22. Optometry IT |
| 6. Berkeley IT - People, Performance & Culture | 23. People and Culture |
| 7. Berkeley IT - Strategy & Partnerships | 24. Public Affairs |
| 8. Berkeley Law IT | 25. Research, Administration, and Compliance (RAC) |
| 9. Berkeley Public Health (BPH) | 26. Research, Teaching, and Learning (RTL) |
| 10. Berkeley Regional Services (BRS) | 27. School of Journalism |
| 11. Cal Performances | 28. School of Social Welfare |
| 12. Computing, Data Science, and Society (CDSS) | 29. Summer Sessions, Study Abroad, Lifelong Learning, and Extension (SSALLEX) |
| 13. Demography | 30. University Development and Alumni Relations (UDAR) |
| 14. Engineering IT | 31. University Health Services IT (UHS) |
| 15. Environment, Health & Safety IT (EH&S) | 32. Vice Chancellor Research Office (VCRO) |
| 16. Facilities Services IT | |
| 17. Goldman School of Public Policy (GSPP) | |

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