

**2018**

# Office of Information Technology Accomplishments Report



Office of Information Technology  
UNIVERSITY OF COLORADO **BOULDER**

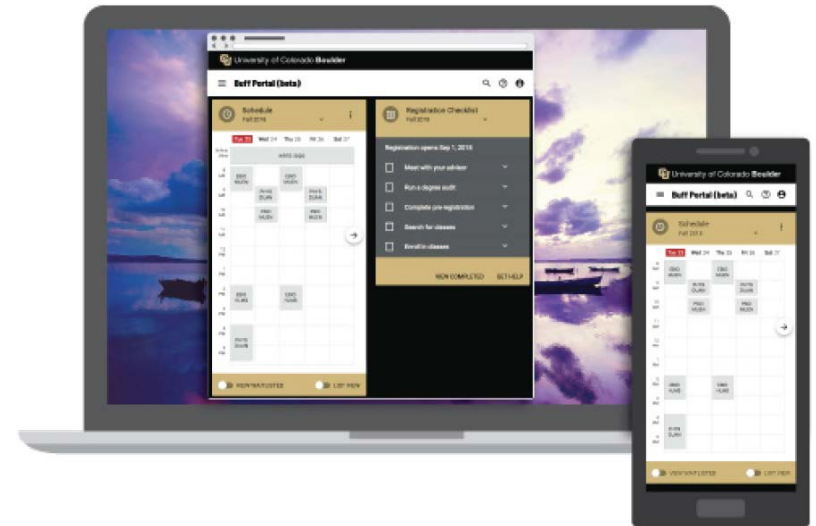


# Academic

## UNIFIED STUDENT EXPERIENCE / BUFF PORTAL BETA LAUNCHED



OIT is partnering with students and campus offices to design and build Buff Portal - CU Boulder's new student portal in support of the [Unified Student Experience \(USE\) project](#). An early portal prototype was launched to a diverse group of 100 students to evaluate usability. Students were given specific tasks to complete within the new portal using their mobile device. As one student noted, "My feedback has been valued and I've seen the changes I have suggested in action as I continue to work with it." We found that 87% of students rated the portal as easy to use and intuitive. Feedback about usability, bugs, preferences, etc. has been captured for future inclusion into the overall design. Overall, feedback has been very positive and clearly indicated that Buff Portal is on the right path.



*USE/Buff Portal with easy to use responsive design*

“My feedback has been valued and I’ve seen the changes I have suggested in action as I continue to work with it.”

*- Buff Portal student user*

# Academic



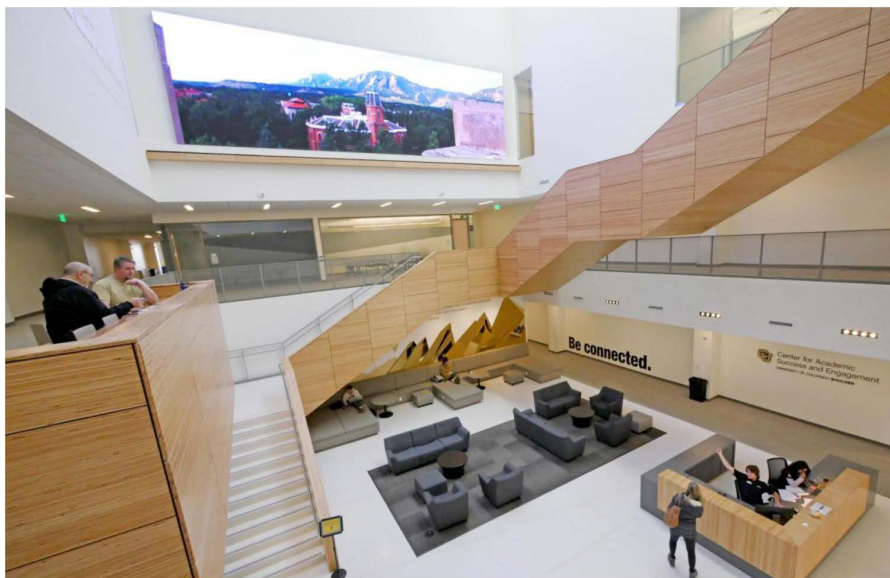
Schools, Colleges & Business Units  
Using MyCUHub



## *SUPPORTING UEAC AND CAMPUS ADVISING UNITS*

Student Success is a top priority for our campus. MyCUHub, a centralized, campus-wide, student engagement system, continued to support student success this year by expanding its user base to over 20 business units and adding new functionality to the core set of advising based utilities. Student card swipes are now tracked in MyCUHub for events, trainings, and tutoring centers. Faculty can now submit course early alerts via a web-based form which enables advising staff to provide timely, targeted messaging and resources to their students.

With the launch of the new University Exploration & Advising Center (UEAC), there was an opportunity for OIT to further explore the unique needs of the students they are serving so they can target their advising more effectively. OIT provided UEAC with qualitative data that helped them make educated decisions on how to support their students.

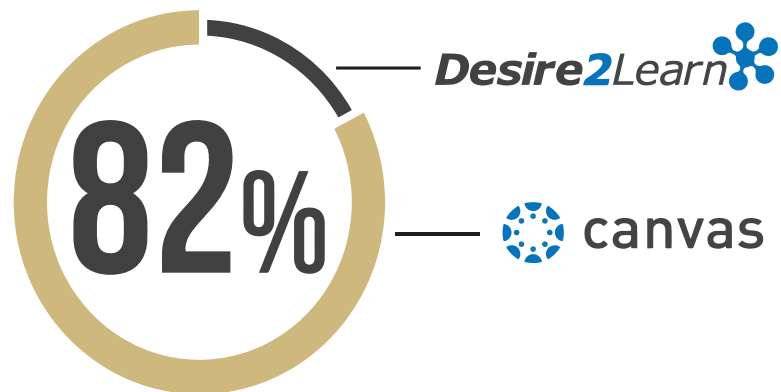


*UEAC located in Center for Academic Success and Engagement (CASE), Suite E291*

# Academic

## THE ADOPTION OF CANVAS

In fall 2017, Canvas was selected to be our campus's Learning Management System (LMS). To help ease the transition from Desire2Learn (D2L), OIT hosted 80 training sessions (72 in person, 8 online). The types of training included: Teaching with Canvas, Using Canvas to Maximize Student Engagement and Collaboration, Canvas Showcase, Canvas Migration Support, Grading in Canvas, Quizzes in Canvas.



*Fall 2018: 82% of courses are on Canvas (2,614 courses) and 18% (575 courses) are on D2L*



In addition to training, OIT completed a number of enhancements:

- The student identifier used in Canvas was changed from the Unique Universal Identifier (UUID) to the Student ID (SID).
- When a student or auditor drops from a Canvas course, they are now marked as “inactive” instead of being removed from the course completely.
- A simplified Turnitin integration, that sets up plagiarism detection for assignments, has been enabled.
- Course creation process was improved. Instructors no longer have to contact OIT and wait for up to two-business days to get their course shells. If they have a basic course, the course is made available for them immediately.
- The Web Grading integration launched in May. It allows instructors to export final grades from Canvas in a ready to upload format to the Registrar's web grading system. An even better version will be available in December.

## Academic

“The MS-EE is not only revolutionary in terms of curriculum, but will also lead other universities in terms of the student experience. The technology that OIT is developing will have a powerful impact on future online projects and, eventually, the residential campus experience. Ultimately, OIT has been a fearless proponent for change in higher education.”

- William Kuskin, Vice Provost and Associate Vice Chancellor for Strategic Initiatives



### *ONLINE VISION (MS-EE)*

This spring, OIT partnered with the College of Engineering and Applied Science, Office of Strategic Initiatives (OSI), and University Information Systems (UIS) to help deliver a MOOC based online, asynchronous, on-demand graduate degree. By building strategic partnerships, organizing resources, gathering requirements, and understanding and defining the student experience, the team built a highly flexible and on-demand course structure, empowering future students to take control of their academic experience. The [Master of Science in Electrical Engineering \(MS-EE\)](#) full curriculum should roll out across Academic Year 2019-20.

# Academic

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## *CLASSROOM CAPTURE GRANT TO SUPPORT FACULTY*

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Faculty asked, OIT listened. CU Boulder's [Classroom Capture service](#) has expanded. During the fall 2018 and spring 2019 semesters, all courses and education-based events that support the academic mission of the university are now eligible for Classroom Capture at no cost. Previously, Classroom Capture was available only as a common-good service to classes with a course code. This pilot expands beyond just courses and will fund Classroom Capture for education-based content that supports the academic and teaching mission of the university.



*CU Boulder Classroom Capture service expanded and available at no cost*



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## ***SUPERCOMPUTER IMPROVEMENTS***

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Over the past year, several improvements were made to the [RMACC](#) Summit supercomputer, including:

- New, faculty contributed, nodes featuring Intel Skylake processors.
- Support for [XSEDE](#) accounts, which provides access to regional and other non-CU researchers.

RMACC Summit remains a popular and successful HPC deployment with over 90% average utilization.



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## ***REMOTE VISUALIZATION***

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To enable researchers to work remotely, EnginFrame provides that ability. Coupled with the proprietary Desktop Cloud Visualization (DCV) VNC server, EnginFrame supports the use of common visualization applications in a typical desktop environment using only a modern web browser.



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## ***JUPYTERHUB***

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Another web service researchers utilize is Jupyterhub, a notebook interface to computational resources, allowing users to create and share documents that contain live code, equations, visualizations, and explanatory text.

# Administrative

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## *CLOUD SERVICES TO IMPROVE EFFICIENCY*

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Working with the Office of Data Analytics (ODA), OIT helped deliver a cloud solution through Amazon Web Service (AWS). ODA is now able to deliver predictive analytics at a much faster rate so that researchers can better determine appropriate funding in a more timely manner. While ODA focused on developing the solution, OIT worked on the infrastructure, procurement, and IT security. This was just the start of our public cloud service offerings. More to come in the future as we work to fulfill the [campus cloud strategy](#).



*Utilizing Amazon Web Services to deliver public cloud services to the CU Boulder campus*



**14,814**  
Incidents and Requests Resolved



**Administrative**



***CONTINUED INVESTMENT IN  
DEDICATED DESKTOP SUPPORT***

As a campus standard and common good service, Dedicated Desktop Support (DDS) provides proactive and reactive technical support for computers, tablets, and mobile devices. By providing DDS as an enterprise service, OIT enables departments the time to focus on their academic priorities instead of computer support. Within the past year, DDS resolved 14,814 incidents and requests with a 97% satisfaction rate.

**97%**

**Customer Satisfaction Rate on  
Cases Worked by DDS**

# Administrative

## NETWORK UPGRADES -- WIRED/WIRELESS

Despite undergoing continuous improvements and upgrades over the years, the demand for network connectivity continues to grow. Over the past year, significant investments were made to [upgrade the campus network](#) to meet the ongoing needs of our campus.

Upgrading the Network:

- The campus backbone, which carries data between the core routers, was upgraded from 40 Gigabits per second (Gbps) to 100 Gbps.
- Distribution uplinks, which carry data from the core routers to distribution routers, were upgraded to 40 Gbps from 10 Gbps.
- From the distribution routers, data is transported to individual buildings across campus. These links were upgraded from 1 Gbps to 10 Gbps.
- The campus' link to the Internet was upgraded from 30 Gbps to 70 Gbps and will be upgraded to 90 Gbps in the near future.



Upgrading the Network Equipment:

- Residence hall switches were reconfigured, updated and consolidated.
- All residence halls, with the exception of family housing buildings which have unique requirements, received new Wi-Fi access points.
- Wi-Fi access points in key large lecture rooms were upgraded.
- Eight complete building upgrades were completed.



*Campus backbone was upgraded from 40 Gigabits per second (Gbps) to 100 Gbps*

# Administrative



## ***NEW RECRUITING SYSTEM***

To recruit and hire top faculty & staff, we need a recruiting system that is efficient and intuitive while meeting Boulder's talent acquisition needs. The former Taleo recruiting system was outdated and cumbersome so OIT teamed up with Human Resources (HR), University Information Systems (UIS) and Strategic Relations and Communications (SRC) to integrate a system that not only improved the experience for candidates, but greatly enhanced the workflow for recruiters and hiring managers. The new Applicant Tracking System Avature was rolled out to staff in May 2018 and to faculty in August 2018. This new system reduced the paper burden and consolidated many Human Resources business processes. By having a centralized portal that is easy-to-use, CU Boulder employees have more time to dedicate to other important tasks and potential candidates have a better first impression of CU Boulder.



*Employees tour Heritage Center as part of NEW-X program*

# Administrative

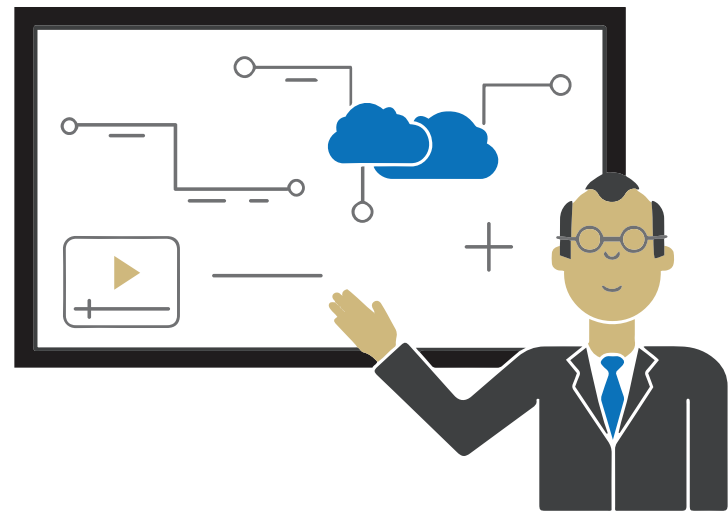
## IMPROVING ADVANCEMENT



In 2015, CU President Bruce Benson tasked our campus community to improve data held in Advance, our fundraising system, and then link that data in a constituent relationship management (CRM) data platform. Before a solution could be developed, the issue needed to be fully understood. CU Boulder Advancement (CUBA), Central Advancement and the University of Colorado Foundation engaged OIT's Business Analysis and Solutions Architecture (BASA) team to help assure that the future technology would meet their evolving data needs.

Over the past year, the BASA team worked to understand the state of the current processes. From there, they mapped 40 critical business processes, identified ways technology can increase efficiencies & reduce the burden on employees, and provided recommendations. Through these processes, partnerships across the fundraising system are forming and silos are breaking down to transform the way we do donor management across CU Boulder and the system.

**40** Critical business processes mapped and identified to increase efficiency



*BASA reduced employee burden using technology solutions for business processes*