TABLE OF CONTENTS

I  Message from the CIO  01

II Gifts From the Past  02

III Saving Time  04

IV Protecting Time  06

V Stopping Time  08

VI Future Time  10

VII Across Time  12

VIII Your Time  14

University Information Services has the privilege of serving the Anschutz, Boulder, Denver and Colorado Springs campuses, as well as CU System Administration. 2022-23 was marked by extensive planning and preparation for the data center move to Anschutz Medical Campus. New services and efficiencies were developed, like the Student Support Network at UCCS and CU Ascend for CU Advancement and Foundation. Cybersecurity hit several milestones, making data at CU safer than ever.

In addition to the projects and innovations you’ll discover in this report, UIS also rolled out a Customer Success Team to help our customers reach their goals. The UIS Customer Success Team aims to meet customers where they are, coordinate the intake of their technology priorities and craft solutions that increase efficiency, collaboration and innovation.

All of us at UIS appreciate the opportunity to serve you — CU’s students, faculty and staff — in the past, present and future!

Sincerely,

Scott Munson
Associate Vice President and Chief Information Officer
University Information Services

The UIS Customer Success Team and their Customer Segments

Art Figel
Student and Academic Services

Aaron Mansfield
Campus and System Leadership

Jen Millikan
Schools and Departments

Jenn Mortensen
Advancement Online and Marketing Services

Scott Munson
Office of the President

Jennifer Silverthorne
Research Administration

Bob Sudo
HR Services

Jaya Vaidyanathan
Finance, Procurement and Admin Services

Grant Management

Jennifer Silverthorne
Research Administration

Bob Sudo
HR Services

Jaya Vaidyanathan
Finance, Procurement and Admin Services

Grant Management

Sincerely,
Scott Munson
Associate Vice President and Chief Information Officer
University Information Services
The University of Colorado builds on the innovations and ingenuity of the people who make CU great. The greatest contributions often go unnoticed because when a crisis is avoided — no one hears about it. These three contributions helped to prevent interruptions to research and education on CU campuses.

**REROUTING DATA**

Access to data and the internet are essential to the university’s day-to-day operations. UIS invested in a dedicated fiber network ring. UIS provides automatic failover in case the primary data transfer path is disrupted. More than seven times in recent years, there have been incidents when our fiber network lines were cut by contractors in the metro Denver area. These outages last 11 hours on average, but with the network strategy UIS put in place, there was zero downtime or degraded service to our customers during each of these events.

**SHORTER MAINTENANCE WINDOWS**

A collaborative effort from UIS teams successfully led to a reduction in the time required to deploy critical application patch updates. The teams were able to reduce critical patch updates for Oracle-based systems from 30+ days, then 12 and now only 4 days. The UIS maintenance calendar builds contingency windows into its schedule in case an update requires more time, but so far no contingency window has been necessary. While the CU Data Center Move required an extended outage, 2023 is the first year with all maintenance windows lasting 12 hours or less.

**SEMIESTER START**

Over several years, UIS has continuously improved its approach and processes to provide the smoothest user experience possible for CU students, faculty and staff during this critical time of the school year. Every semester, Student IT Services, Identity and Access Management and Portal teams put in hundreds of hours planning and preparing for a successful semester start. Enterprise systems are monitored regularly using an application that emulates end-user activity from each campus. This system runs 24/7 across UIS services and alerts our team if any transaction becomes problematic, often in advance of impacting customers. In conjunction with extensive system logging, this enables the quick diagnosis and remediation of problems should they occur.

During the first 24 hours of each semester start, UIS operates a virtual command center, where staff continually monitors systems and is prepared to respond. Staff stays ready to engage campus IT Service Desks, key supplier contacts such as Oracle, technical teams and additional UIS staff, as necessary. The Quality Assurance team runs several potential scenarios and performance tests to assure stable student systems and portal performance.

**SNAPSHOT: MAKING ACCESSIBILITY QUICKER AND EASIER**

Screen readers are a form of assistive technology, primarily used by people with vision impairments. These tools translate written text to audible speech. This year, UIS made improvements to the employee portal’s screen reader functionality to make it easier to activate and use screen reader mode.

UIS added a new icon to the portal’s menu bar that allows users to easily toggle screen reader mode on and off. A popup message confirms their selection, after which the portal will remember their screen reader setting — if they turn screen reader on, the tool will be activated every time they log in until they turn it off.

Improving the user experience of accessibility tools enables all CU faculty and staff to quickly and easily locate important personnel information, make changes, submit timesheets, leave requests and complete other portal tasks.
UIS SAVES CU TIME

Through collaboration, automation & greater efficiency

UIS partners with CU campuses and System Administration to deliver digital solutions that save time, money and resources. These collaborations improve the university’s operations and create a culture of efficiency and innovation at CU.

GRANTS MANAGEMENT (GM) FINANCIAL REPORT

The University of Colorado attracts more than $1 billion in grants and gifts supporting research each year. Federal agencies award a large portion of CU’s sponsored research funding, and those awards require financial reporting during and at the closeout of an award. Grant accountants and sponsored projects administrators on every CU campus devote time to the Federal Financial Reporting (FFR) process.

The GM Financial Report, a new custom-built tool from UIS, simplifies the process while highlighting potential expenditure issues. Rather than pulling data from a variety of queries and financial reports, grant administrators can now easily verify and pull all the information quickly. Perhaps best of all, they can run batches of the report.

“Prior to having the GM Financial Report, we used an internal spreadsheet, which took much more time to complete, especially on complex projects,” said Koffi Gnatsidji, assistant director of Post-Award Financial Services at CU Denver and Anschutz Medical Campus. “Now, it’s instant and more accurate.”

TIME SAVED BY THE GM FINANCIAL REPORT

30 min per report
12 hours per week
600 hours a year

(based on 1,200 financial reports due each year; Source: UIS Efficiencies Report 2023)

UCCS STUDENT SUPPORT NETWORK

UIS, in collaboration with UCCS, integrated a new tool for faculty, staff and students that launched in June 2023. The Student Support Network, built on the Salesforce platform, is designed to foster a stronger, more interconnected network of services and departments to support UCCS students while reducing the number of systems required for staff to use.

“This years-long collaboration between UIS and UCCS brings us closer to achieving our 2030 Strategic Plan goal to integrate student service systems dedicated to recruiting, academic support, continuing enrollment and graduation services,” said Harper Johnson, UCCS assistant vice chancellor for Information Technology and chief information officer.

CU ASCEND FOR ADVANCEMENT

The UIS Integrations, Data & Business Intelligence, and Enterprise Content Services teams collaborated to rethink the way data moves in and out of Advancement systems, resulting in a new constituent relationship management platform called CU Ascend. The new integrations allow data to be delivered faster and more reliably.

CU Advancement and the CU Foundation launched CU Ascend in May 2023, citing how it gives Advancement staff better insight into donors’ philanthropic interests through modernized databases and tools.

CU ENTERPRISE APPLICATION UPGRADES

Behind the scenes, UIS teams work for several weeks — and in some cases months — to prepare upgrades for applications like PeopleTools, InfoEd and Tableau with the goal of offering users greater stability, better navigation or new features.

InfoEd completed an upgrade to improve the application’s daily stability, address bug fixes and enhance configuration tools. While the user interface did not change, annual upgrades like this one ensure applications are at their peak performance, which reduces the number of support ticket requests.

PeopleTools upgraded new features for HCM and Campus Solutions users. Both groups received customized guides and video tours for their specific upgrades that highlight the new homepage navigation options, global search bar, and enhancements to the NavBar.

The CU Tableau server upgraded three environments, which introduced new features like the Workbook Optimizer, a new search experience and an Ask Data Phrase Builder.

Upgrades require a great deal of planning, coordination and collaboration across teams and with campus stakeholders. UIS is grateful to everyone who contributes to assessing, testing, customizing and implementing application upgrades.

ONBASE AND INFOED INTEGRATION

The CU Denver and Anschutz Medical Campus Office of Grants and Contracts wanted a new way to manage day-to-day transactions and leverage existing data and content. UIS designed and implemented an innovative and flexible integration between InfoEd Proposal Tracking Module and Hyland OnBase, consolidating document storage and providing access in either InfoEd or OnBase to critical document data.

PAYFACTORS INTEGRATION

CU Boulder needed a secure integration file that would capture employee compensation data and job history, and an upload and transmission process from HCM to their compensation management system, Payfactors. UIS created an automated, secure integration and transmission process that captures all employee data in a readable and usable format for the Payfactors system. This automation also delivers on a pre-determined schedule that is sent daily with current data as well as on an as-needed basis.

UIS IMPACT REPORT | SAVING TIME

“CU Ascend is a foundation for how we will inspire our donors to support what they’re passionate about across our campuses,” — Annie Baccary, CU’s Vice President for Advancement Administration.

RESULTING SAVINGS:

At least 32 hours per month — 384 hours annually and more than $20,000.
...data and resources through cybersecurity

As cybercriminals continue their attempts to compromise the valuable data held within university systems, the University of Colorado has intensified its overall security posture. With the implementation of an Intrusion Prevention System and a new Security Information and Event Management (SIEM) tool — plus stronger passwords and an increased information security awareness requirement for CU employees — UIS, the Office of Information Security (OIS) and the campuses aim to further strengthen and align cybersecurity across the university.

CU SYSTEM PASSWORD REQUIREMENTS

Creating a strong password is a critical step to protecting your data. Using long, complex passwords is one of the easiest ways to defend yourself from cybercrime. No one is immune to cyber risk, but CU System password requirements minimize chances of an incident. All employees must update their password every 90 days and must create a password that meets five requirements, including a new minimum length of 12 characters, up from the previous requirement of 8 characters.

SMART MFA

Multi-factor authentication, or MFA, is a security measure that requires anyone logging into an account to use a two-step process to verify their identity. UIS added the extra protection of multifactor authentication (MFA) to all CU systemwide applications in 2022 and chose to use Smart MFA because it adds an additional layer of security with a customer focus that avoids MFA fatigue.

Smart MFA, also known as adaptive authentication, analyzes additional factors when a user attempts to log in and assigns a level of risk associated with that login attempt.

NEW INFORMATION SECURITY AWARENESS COURSE REQUIREMENT

Every CU employee has a shared responsibility for protecting data, student and employee information and our university’s ability to operate successfully. In an effort to protect the data that allows CU to deliver on our academic and research missions, a new employee requirement was announced Oct. 2, 2023.

All CU employees (faculty, staff, and student employees) must complete the university’s Information Security Awareness training course within the first 60 days of employment and every two years thereafter.

The Information Security Awareness training course provides an overview of security principles, as they apply to data at CU. The course takes about 30 minutes to complete. The course content is updated annually as approaches to cybersecurity continually adapt to new challenges.
UIS PAUSED TIME

— for the CU Data Center Move.

At 2 p.m. Oct. 10, UIS announced the completion of a yearlong project to move the University of Colorado systemwide data center from its Denver location to a new, modern facility on the Anschutz Medical Campus.

The massive effort involved moving and setting up more than 11 tons of equipment and required all four campuses and System Administration to be without access to systemwide applications for an extended time period.

“A project of this proportion was only possible with the contribution of our partners on each campus,” said Scott Munson, UIS associate vice president and chief information officer. “We are incredibly grateful for our OIT partners — and how closely they worked with their campus communicators and leadership to ensure everyone was prepared for the implementation window.”

The CU data center relocation marks a significant milestone for the university’s technology infrastructure, enhancing its capabilities and supporting its mission to deliver cutting-edge research, education and service to Colorado and the world.

BY THE NUMBERS

11 TONS
Weight of IT equipment moved to and set up at Anschutz Medical Campus

98
Hours to complete the move

44
CU enterprise systems reliant on the data center

A DATA CENTER MOVE HAS MORE MOVING PARTS THAN A GIANT CLOCK.

Every UIS team contributed to the data center move, especially:

Enterprise Cloud Services
Enterprise Application Administrators
Identity and Access Management Team
Integrations Teams
Networking Team
Quality Assurance Team
Project Management
UIS Communications
Office of Information Security

What is a data center? Isn’t everything in the “cloud?”

A data center is a specialized facility for housing computer servers and networking equipment, storage systems and power distribution units. Data centers are used by businesses, organizations and governments to host websites, applications, databases and other critical IT services. They provide the necessary infrastructure to ensure that these services are available, reliable and responsive to user demands.

Even in the age of cloud computing, a data center provides the infrastructure required to run applications and manage and store data.

While the necessary extra day and a half was unanticipated, the team’s preparation and perseverance kept the downtime from being further extended. With so many moving parts — figuratively and literally — we couldn’t have done it without great partners.

— Tony Brooks, senior director of Enterprise Cloud Services
UIS PREPARES...

...for the future

In 2023, the UIS Customer Success Team engaged in strategic interviews to source customer work requests and ensure alignment between UIS efforts and customer objectives. Additionally, internal product teams mapped out anticipated work and backlog items for the next two years.

The combined input was consolidated into a two-year roadmap view that can be sliced and diced along various criteria such as customer segment, campus and managing UIS team.

This new forecasting workflow feeds into UIS’ goal to increase transparency into its prioritization processes and resource allocation. By looking beyond 2024, UIS will be better able to manage their capacity thresholds and better prepare their customers for project timelines.

A SAMPLING OF UPCOMING PROJECTS

- Data Governance & Management
- Time and Labor
- Campus data hubs implementation
- Work intake and demand management phases of the UIS Service Framework.
- Cybersecurity enhancements
- Continued expansion and improvement of the CU Online platforms

UIS GOALS BASED ON YOUR FEEDBACK

UIS customers receive an annual survey to provide feedback and help determine priorities. Based on common themes, UIS plans to:

- Increase visibility into UIS priorities and expected timelines for requested work.
- Improve customer awareness of UIS solutions and how to request work from UIS.
- Maintain and strengthen security and compliance of systems.
- Develop more business efficiencies via process reengineering, workflow solutions and automation of routine tasks.
- Continue to reduce data silos while providing richer data for improved reporting and decision making.
- Improve integrations to support efficient flow of data between systems.

A look at where UIS spent time in FY 2022-2023

Who were UIS’ biggest project customers over the past year?

In an emergency, clear and timely information is critical to keep people safe. Information shared in a language a recipient doesn’t understand can put them in a vulnerable position. The university’s emergency notification system, RAVE, offers a translation process in multiple languages, but the campuses needed UIS to build those options into processes to allow students, faculty and staff to select their preferred language for emergency communications.

UIS collaborated with CU campuses, especially Garry DeJong, CU Boulder director of Events and Emergency Management, who initiated the systemwide project.

CU Boulder was the first to implement this solution. Now, its students, faculty and staff have the option to select from 10 preferred languages for RAVE alerts. Other CU campuses will be able to follow suit now that UIS has built the foundational integrations.

“This was a meaningful initiative with several teams working to ensure that — in a potentially scary or confusing situation — students and employees are able to obtain that message in their first language and eliminate confusion for them in the moment,”

— Lindsey Apodaca, UIS Solutions Manager
UIS contributions to the University of Colorado — past, present and future — exist because of UIS staff and their creativity, knowledge and dedication. This timeline highlights milestones in our department’s growth and we’re proud to call each of you our colleagues.

In August 2023, Alan Vidmar retired as associate director of Enterprise Content Services, after innumerable contributions and thirty years at the University of Colorado.
We hope you enjoyed the 2022-2023 Impact Report, highlighting the collaborative efforts between UIS, CU System and the four campuses in support of the University of Colorado’s mission.

Now we want to hear from you!
Visit cu.edu/uisfeedback and share how you partner with UIS!

Complete the feedback form before Dec. 15, 2023 for a chance to win $50 cash!
Five CU employees will be randomly selected from the feedback entries.