Colby

October 2023 Information Technology Services Update

Executive Summary
The theme of our 2023 Information Technology Services Update revolves around the College's strategic efforts to modernize administrative systems and enhance technology infrastructure across various areas. This includes the successful preplanning and assessment phase completion of the Workday Student Implementation Project, which integrates with existing HCM and Finance modules, reflecting a holistic approach to institutional operations. Additionally, the update highlights significant progress in data governance and change management, improved information security measures, and extensive infrastructure upgrades. The report also underscores the commitment to academic technology and classroom enhancements, fostering a comprehensive and collaborative approach to technological advancement.

Workday, Data Governance, and Change Management
The Workday Student Implementation Project represents a major advancement in the institution's infrastructure. The preplanning and assessment phase is successfully completed, and we're halfway through the planning stage, with two more years of work ahead. Workday Student seamlessly integrates with existing HCM and Finance modules, streamlining operations and data sharing. This initiative underscores our commitment to an integrated technology infrastructure, promoting collaboration among stakeholders and data excellence. Additionally, substantial progress in Colby's Data Governance program has established a solid foundation for effective data management and strategic vision alignment.

Information Security
ITS information security is diligently executing a three-part strategic plan encompassing robust security solutions, policy governance, and an awareness program. We've implemented all 110 NIST 800-171 security controls, employing initiatives like Rapid7 for vulnerability assessment, considering Proofpoint for email security, adopting Rubrik for data protection, and transitioning to Keeper for password management. We also maintain a high-risk data inventory and collaborate with US-CISA on security exercises and partnerships.

Infrastructure Improvements
Nearly $800,000 was invested in campus network enhancements, primarily focusing on improving wireless networks in residence halls. The introduction of Rubrik as a new enterprise backup solution will enhance data recovery speed and ransomware protection for over 400 virtual servers. Further improvements include the replacement of wired network infrastructure in multiple residence halls, the deployment of Juniper's Mist AI-based network management platform for enhanced performance oversight, the transition from legacy telephone PBX to an updated VOIP solution from Avaya, and an assessment of campus emergency telephones to improve reliability and maintenance. Additionally, online functionalities and the dining app, featuring mobile ordering, were upgraded at two campus locations.

Academic Technology
We're enhancing multimedia support with new coordinators and improved AV technology, including better audio quality and permanent Zoom Rooms. Plans to expand Zoom Rooms and add projection systems for improved collaboration and education are underway. We've appointed Media and Learning Spaces Technology Coordinators, relocated AV equipment, and maintained interest in lecture capture. Significant upgrades to academic spaces include improved audio, permanent Zoom Rooms, and laser projectors in Bixler and Davis classrooms. Future plans include more Zoom Rooms and a permanent projection system in Page Commons at Cotter. For the Gordon Center, we've developed temporary AV support, with ongoing assistance during the transition to a permanent setup, earning high faculty satisfaction.

Administrative Systems Modernization: Workday Student Information System, Data Governance, and Change Management

Workday Student Implementation
The Workday Student Implementation Project at represents a monumental leap forward in our institutional infrastructure. We are delighted to report that we have successfully completed the preplanning and assessment phase of the project, laying a robust foundation for this transformative initiative. As of now, we find ourselves at the halfway point of the planning stage, firmly on track to bring this project to fruition. It's worth noting that we have two more years of dedicated work ahead of us to complete the project in its entirety.

Workday Student seamlessly integrates with our existing HCM (Human Capital Management) and Finance modules, creating a comprehensive ecosystem that enhances our institutional operations. By extending Workday to encompass student-related processes, we achieve a unified and streamlined approach to managing our entire workforce, financial, and academic resources. This integration not only fosters efficient data sharing and reporting but also provides a holistic view of our institution, facilitating better decision-making and resource allocation. It represents a significant step forward in our commitment to providing a cohesive and integrated technology infrastructure that supports the diverse needs of our institution, from personnel management and financial oversight to student engagement and academic success.

In parallel with our implementation efforts, we are also dedicated to enhancing the Workday Platform environment to ensure that its design, security, and functionality adhere to industry best practices while meeting the specific needs of our Colby stakeholders. To achieve this, we have engaged outside consultants who are actively reviewing our systems, making improvement recommendations, and working support teams to implement necessary changes. This proactive approach ensures that not only the Workday Student module but also our broader Workday ecosystem remains at the forefront of technology and aligns with our institution's unique requirements.

One of the most heartening aspects of this endeavor has been the unwavering spirit of collaboration among Colby stakeholders. Our partnership with our implementation partner, Alchemy, has proven to be valuable, assisting with the smooth progression of the project. The remarkable efforts put forth by our stakeholders have been instrumental in driving this initiative forward, demonstrating our shared commitment to achieving excellence across our institution. As we move ahead, we remain deeply appreciative of the dedication and hard work that continue to propel this project toward its successful completion.

Data Governance, and Change Management
We are pleased to report significant progress in Colby's Data Governance program. The program has been firmly established, supported by a guiding charter and a dedicated Data Governance Committee (DGC) responsible for coordinating the college's data initiatives. During this reporting period, we have successfully identified Colby's data stewards and provided them with comprehensive introductions to data governance principles and resources for effective data management.

Our Data Governance Committee has experienced substantial growth in its influence and engagement across the College community. This expansion includes updates to online repositories housing the ongoing efforts of the DGC, ensuring transparency and accessibility. The DGC has set annual objectives focused on data documentation, data literacy programming, and effective communication of data governance initiatives to campus stakeholders. These goals will serve as guiding principles to enhance our data governance practices.

Furthermore, the Data Governance Committee has identified opportunities to enhance data quality and promote strategic, ethical data utilization. Focused data projects are in progress, aimed at devising and implementing optimal solutions. This underscores Colby's dedication to data excellence and its alignment with our strategic vision for the future.

Information Security

ITS information security continued its efforts according to a three-part strategic plan - robust and scalable security technology solutions, appropriate policy and governance, and a focused awareness and response program. Working through a combination of policy, process, and data governance initiatives, ITS has fully or partially implemented all 110 information security controls as defined by the U.S. National Institute for Standards in Technology (NIST) 800-171 framework. Several technology and process initiatives were undertaken or are currently in process:

- Deployment of the Rapid7 vulnerability assessment platform for detecting and managing system and network vulnerabilities
- Evaluation and proposal for deployment of the Proofpoint secure mail and awareness platform to combat fraudulent and malicious email
- Adoption of the Rubrik enterprise backup platform for ransomware recovery and data loss prevention among Colby's 400+ virtual systems and servers
- Selected Keeper to succeed LastPass as Colby's enterprise password management solution
- Continued efforts, in conjunction with the data governance committee, to maintain an inventory of high-risk data, systems, and access
- Working with the U.S. Cybersecurity and Infrastructure Security Agency (US-CISA) to develop security tabletop exercises and additional partnership

Infrastructure Upgrades

Nearly $800,000 of capital investment was directed at campus network improvements, nearly all aimed at significantly improving the wireless networks in residence halls. The deployment of Rubrik, a new enterprise backup solution for Colby's 400+ virtual servers, will bring faster recovery times and enhanced ransomware protection. Significant improvements to campus card readers (Colby Card) and online functionality were completed, including a redesigned dining app with mobile ordering options at two campus locations.

- Wired network infrastructure was completely replaced in the Dana, Foss, Woodman, Mary Low, and Coburn residence halls. Over 400 new wireless access points were added, many of which are in-room, hospitality-style models that provide two wired data ports in addition to a strong, high-speed wireless signal.
- The deployment of Juniper's Mist AI-based network management platform is enabling more visibility into network performance, allowing network administrators to be more proactive in their operations and faster to deploy network switches for the growing campus.
- The legacy telephone PBX was powered down during the summer, with the campus now being served by a more up-to-date voice-over-IP (VOIP) solution from Avaya. We are already turning our attention to an extended evaluation of Zoom phone, which enables more modern mobile and computer-based telephony services.
- An assessment of campus emergency telephones and partnership with campus security and facilities services will increase the reliability and ongoing maintenance of this critical infrastructure.

Systems Administration

- Migration of virtual systems to the newly deployed Nutanix hyper-converged computing infrastructure (HCI) was completed over the summer with no disruption in services.
- The Okta single sign-on authentication platform continues to grow, with more than 4500 users and over 150 applications served. This effort has represented a significant advancement in Colby's identity management and account security architecture.
- Deployment of the Rubrik infrastructure backup solution, which replaced HYCU and additional local backup services, is underway. This service will significantly improve disaster recovery times, from days to hours, while also improving ransomware protections.

Desktop and Endpoint Administration

- The deployment of Microsoft in-Tune for the management and patching of more than 800 Microsoft Windows computers is providing improved capabilities for software configuration and management. Jamf continues to serve us well for the more than 1,300 Apple computers deployed at Colby.
- More than 30 card readers in dining locations and on copiers were replaced as part of the Transact service upgrade on campus, replacing obsolete hardware as well as introducing credit card and wireless tap functionality. The final phase of this project will involve replacing readers on vending machines to support credit cards in addition to Colby Cards.
- Working with dining services, a new mobile app (Colby Eats) was launched at the end of the 2023 academic year that allows for online orders to be placed and picked up at campus dining locations.
- Significantly improved the student printing experience in the Libraries, making it easier to print and retrieve printing jobs in a less wasteful manner. Plans are underway to deploy seven fast-release stations around campus to increase the ease of printing on campus.
- As part of printing services upgrades, we are in the process of moving to the Papercut print management solution which will improve the printing experience for faculty and staff.

Academic Technology Services

We are strengthening our multimedia support with new coordinators and enhanced AV technology. Significant upgrades include improved audio in some spaces, permanent Zoom Rooms, and updated AV equipment. We're also planning to expand Zoom Rooms and add projection systems for improved collaboration and education.

- Introduced a new role of Media Technology Coordinator to enhance our multimedia support and services.
- Appointed a highly qualified Learning Spaces Technology Coordinator (Sam) to ensure optimal functionality and utilization of our learning environments.

- Implemented a strategic relocation of AV rental equipment from Miller to Gordon, establishing a dedicated checkout room and student staffing to better cater to the needs of academic programs.
- Maintained a consistent and growing interest in lecture capture technology across various classrooms, fostering enhanced learning experiences.

Academic Classroom and Multivenue Space Improvements

Throughout the summer and into the fall semester, we've been actively advancing our classroom technology and multi-use venue capital projects. Some notable enhancements include a significantly upgraded audio system in Parker Reed, the installation of a permanent Zoom Room in the Eustis 401 conference room, and comprehensive improvements in Arey 005, encompassing enhanced projection, sound, and a new lecture recording system.

Classrooms in Bixler and Davis have undergone transformative upgrades, featuring long-lasting laser projectors for improved reliability, larger touch screens, and the replacement of aging core AV equipment. Looking ahead to the fall, our efforts are focused on adding Zoom Room functionality to key locations, such as the Olin 335 classroom, Diamond 146 conference room, and Greene Block 401 convening space. Furthermore, we're enhancing Page Commons in Cotter with a permanent projection system, ensuring that our technology infrastructure continues to support excellence in education and collaboration.

Planning and Support for the Gordon Center

The ITS Audio Visual and Events Support teams, in collaboration with other members of ITS, developed a temporary AV support strategy to ensure faculty members had the necessary technology for the start of the fall semester. This solution was shared with our contractors who assumed responsibility for its execution. Throughout the entire first week of classes our team was fully available, providing training and support to faculty, which extended into the weeks after classes began. Additionally, we stationed ITS Staff within the building to offer ongoing assistance with the interim setup while our contractors work toward completing the permanent installation. The faculty at the Gordon

Center have repeatedly expressed high satisfaction with the level of dedication and support we've delivered.