

UNIVERSITY TECHNOLOGY, [U]TECH

Strategic Plan Update - 2018

[Re]Imagining IT - By the Numbers



UNIVERSITY TECHNOLOGY
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Numbers and Beyond

This is University Technology, [U]Tech, at Case Western Reserve University (CWRU) “by the numbers.” The statistics and facts within this report demonstrate the division’s commitment to delivering on its Strategic Plan – *[Re]Imagining IT*. However, UTech is not just about the number of technology solutions offered to the campus community or innovative breakthroughs developed at CWRU. UTech is about the professionals it employs, the partnerships forged throughout the CWRU and higher education communities and delivering an excellent client experience each and every time. This report contains those stories and successes as well.

UTech created *[Re]Imagining IT* in June of 2016 to provide a roadmap for serving the technology needs of CWRU. UTech provided a Progress Report in late 2017 to highlight the accomplishments of the plan’s nine initiatives for the faculty, staff and students at CWRU. This 2018 report outlines what has transpired in the last six months of the fiscal year in UTech’s journey to exceed expectations and deliver on its strategic initiatives.



Strategic Goals of *[Re]Imagining IT*

1

Address Fundamental Elements

Provide strong, basic IT services and infrastructure essential to support the CWRU community.

2

Break Down Barriers

Answer the university’s strongly expressed desires for simplicity, agility and clarity in their everyday technology experiences to improve their engagement with information and each other.

3

Advance Innovation

Further CWRU’s position as a global leader in scholarly achievement, leading-edge research and compelling learning experiences.

Strategic Initiatives and Supportive Recommendations of *[Re]Imagining IT*



I - Support Student Success and Enhance the Student Experience

Recommendations: Provide Productive Workspaces and Collaborative Space - Empower Personalized and Lifelong Learning - Provide a Top-Quality Learning and Living Environment for Students



II - Facilitate Effective and Innovative Teaching and Learning

Recommendations: Support Engaging, Effective and Innovative Teaching and Learning - Provide Effective Learning Environments



III - Enhance Research, Scholarship, Creative Activity and Academic Innovation

Recommendations: Develop and Maintain High-Performance Cyberinfrastructure and Research Tools - Engage in Substantive Collaboration on Research Funding and Engagement - Establish a Virtual Research Commons - Support the Preservation and Curation of Research Data

IV - Strengthen IT Foundations, Infrastructure, Operations and User Experiences

Recommendations: Improve Awareness of IT Services, Products and Tools - Support a Culture of Service Excellence - Improve Access to CWRU Resources Anywhere, Anytime - Provide Needed Information Technology Tools - Make the Basic Tools and Facilities for Collaboration More Robust and Accessible - Provide Systems for Collaboration and Communication - Enhance Applications Focusing on the End-User Experience

V - Manage Information Security, Regulatory Compliance and Technology-Focused Business Continuity and Disaster Recovery

Recommendations: Identify, Assess and Manage Security Risks - Protect and Ensure the Continuity of the Institution in the Event of Disaster - Promote and Implement Security-Focused Policies and Practices and Secure the IT Infrastructure

VI - Support and Expand the Use of Institutional Data in Decision-Making

Recommendations: Improve Access to Information and the Collection, Care and Availability of Data - Infuse Data Analytics into Decision-Making - Improve Business Processes for Managing Content

VII - Investing and Funding Information Technology Strategically

Recommendation: Develop a Strategic and Sustainable IT Funding Model

VIII - Attract, Retain and Empower Technology Team Members

Recommendation: Attract and Retain Highly Effective IT Personnel

IX - Centralize University-Wide IT Services and Resources

Recommendations: Reduce and Effectively Manage the Information Security Risk Profile of CWRU - Ensure Business Continuity and Disaster Recovery Readiness by Leveraging Best Practices Across the University - Improve the IT Experience Across All Areas of the University - Optimize the University's Investments in IT - Foster Professional Growth and Development

The [U]Tech Organizational Structure

Client Experience - C.A.R.E. Center, Executive Support, MediaVision, Research Administration + Support, Schools/College Technology Support, [U]Tech Communications + Marketing, [U]Tech Service Desk

Teaching + Learning Technologies - Active Learning Innovation + Support, Hybrid + Online Learning Development + Support, Technology Services + Training

Research Computing + Cyberinfrastructure - High-Performance Computing (HPC), Pre- and Post-Award Collaboration + Consultation, Research Data Storage, Secure Research Environment

Enterprise Systems - Applications Development, Business Analysis, Cloud Services Management, Document Management, Enterprise Applications Support, Identity Management, Infrastructure, Network Services, Project Management, Systems Architecture

Finance + Administration - Contract/Vendor Management, Financial Management, Human Resources, [U]Tech Software Center, UTech Facilities Management

Information Security Office - Awareness Training, IT Policy Governance, Security Operations, Security Risk Management

41,466 - Emails, live chats and phone calls with the [U]Tech Service Desk from July 2017 to April 2018.
4,788 - [U]Tech C.A.R.E. Center visits from July 2017 to April 2018.

Making It Count with Students

Initiative I highlights UTech's pursuit to support student success and enhance their technology experience. This is a top priority across all the areas of UTech. Here are a few examples of how UTech is focused on students:

UTech employs approximately 75 students—providing them with the opportunity to apply their skills to university IT projects and activities.

75

The [U]Tech C.A.R.E. Center, located in the lower level of the Kelvin Smith Library, and the virtual [U]Tech Service Desk provide technology support—24/7/365—via phone, email, live chat and in-person consultation. Self-help videos are also available on help.case.edu.

24/7

More than 55 software titles are available on the [U]Tech Software Center to download at no additional cost for students, faculty and staff including Microsoft® Office® products. These resources leverage academic pursuits and allow students to gain experience for their future careers.

55+

UTech worked with stakeholders from throughout the university and representatives from local businesses and schools to help shape a classroom evaluation process to better serve students with their technology needs.

UTech collaborated with SAGES students in a class project with the goal to improve the student experience related to ID card reactivation.



Working on the Wireless

Internet connectivity is a key component of the college experience for students. UTech's improvements to the CaseWireless network, which includes providing faster access, improving roaming capability and upgrading software, were recognized by the Undergraduate Student Government, noting students' approval of and positive experiences with the improved wireless service.

A New Approach for Decision Letters

Receiving college decision letters is a milestone in students' academic careers and indeed their lives up until that time. Sluggish response times and click-through delays are the last thing anyone wants to deal with at the exciting and monumental time of opening a decision letter email.

In early 2018, for the first time, UTech employed new high availability architecture to carry the large load for the latest crowd of hopeful CWRU applicants. More than 21,000 letters were emailed simultaneously to people around the globe, and the system and network performed admirably in the face of such high volume.

There was a 20% increase in the number of letters released from last year and there were no technology delays. The new system architecture helped to make a positive first experience with the CWRU network for tens of thousands of prospective new students.

UTech continues to support an external web portal, which enables students to access any of the software needed for their classes through any device, at any time, from anywhere that has an Internet connection.



In order to improve the student/advisor experience, UTech developed a way students can provide anonymous feedback on their experience with academic advising.



UTech continued work on the creation and implementation of solutions of centralized systems as well as innovative School of Medicine scheduling models, including Clinical Immersion, PD3, IQ+ for Anatomy Labs and CCLC students. These solutions improve the overall student experience.



Following UTech's adoption of Zoom, it quickly became a popular video conferencing tool for students, faculty and staff that provides easy-to-use, integrated options with many features desired by campus community users to hold productive meetings from anywhere. More than 10,700 Zoom meetings have taken place since going live in July 2017.



Two collaborative student study rooms were created in the Judge Ben C. Green Law Library in Gund Hall. The UTech team at the Case Western Reserve University School of Law collaborated with the Law Library and the UTech server engineering team to implement Intel Unite, a system that allows users to simultaneously share up to four laptop screens wirelessly on the large display.



Innovative Instruction Adds Up

Initiative II focuses on the facilitation of effective and innovative teaching and learning—and it all adds up to engaged, lifelong learners and successful learning environments. Here is what UTech has focused on recently:



UTech has developed an instructional design process to guide expert faculty through a 16-week process for building courses online. Working with faculty members across campus, UTech has built quality-checked courses for both online and hybrid classes. Several courses have been completed this year.



UTech provides enhanced support of existing online programs in areas of vendor selection, program and course evaluation, market research and digital accessibility support. This includes the Jack, Joseph and Morton Mandel School of Applied Social Sciences' online degree program and the Case School of Engineering's online master's degree program.

LMS

UTech engaged in a multi-school partnership to pilot Catalog for Canvas. This allows schools to offer content for professional development and Continuing Education Units to a non-CWRU student audience in the Canvas Learning Management System (LMS).



UTech's Teaching and Learning Technologies team is partnering with the Office of Compliance at CWRU and the Disability Resource Office to audit the current level of accessibility of digital academic content on campus. This is important to ensure the entire university community has equal access to all digital academic content that is available.



UTech is working with the Interactive Commons and other campus partners to implement HoloAnatomy as a permanent part of the medical education curriculum.



UTech helped to develop and deliver a compliance training module for the university, including setting up a special [U]Tech Service Desk group to address any issues or questions arising from the new system. This system helps educate the CWRU community on the university's policies and procedures.

Raising Standards for Health Profession Students

The new Health Education Campus is scheduled to open in the summer of 2019. In this cross-functional and interdisciplinary center, medical, nursing, dental and applied social sciences students will learn together about how their different fields complement one another for the best possible patient care. The campus will employ state-of-the-art learning technology with assistance from UTech, including HoloAnatomy instruction (developed by CWRU) via the HoloLens augmented reality goggles developed by Microsoft®.

1,542

UTech continues to support the adoption of Canvas as the campus-wide LMS—providing training, workshops and help in the transition away from Blackboard. More than 1,542 SIS course sections used Canvas in the spring semester of 2018. UTech offered more than 62 hours of Canvas Consultations in spring 2018—120 hours for the year. Campus usage of Canvas has increased over the use of Blackboard—which was one of the major goals of the transition to support student success.

21

The transition away from Blackboard concluded in early June 2018. A total of 21 "Blackboard Blitz" training sessions were hosted by UTech in spring 2018 to help faculty move all content from Blackboard into Canvas.

4,000 - Staff hours dedicated to the continued support of the School of Medicine's transition to the centrally supported Canvas Learning Management System.

Improving the Curriculum at CWRU

The Jack, Joseph and Morton Mandel School of Applied Sciences called on UTech to help better demonstrate to students the theory and practice of going through a social workers' process with clients. UTech produced two videos to outline the process. Faculty at the school were pleased and convinced the videos would strengthen the coursework. UTech continues to help improve the curriculum at CWRU by leveraging the power of technology in whatever medium is necessary.



UTech partners with the University Center for Innovation in Teaching and Education to co-teach future faculty on how to effectively teach online. This helps students who are receiving their education virtually and provides important professional development to graduate students learning 21st century teaching skills.

9

Nine training workshops were held to inform faculty and students about the plagiarism detection solution in Canvas: Turnitin. This training demonstrated how Turnitin can help strengthen the work completed by students.

Personalized and Mobile Learning

This past spring, UTech partnered with a Biology faculty member to pilot student use of iPads for a semester to supplement their learning. Students reported that using educational applications enhanced their learning.

This coming fall, UTech is collaborating with the University Center for Innovation in Teaching and Education on an "Active Learning iPad Pilot" initiative. The initiative aims to promote active, collaborative learning to facilitate student understanding of course material by engaging and collaborating with peers and technological resources.



In an effort to support innovative teaching and learning through classroom environment evaluation and design, the Classroom Evaluation and Planning Committee launched in spring 2018 to work towards a formal classroom master plan. This committee is a collaborative partnership between UTech and Planning, Facilities and Design.



UTech partners with a vendor to provide closed captioning of recorded lectures, allowing all students to benefit from their professor's presentation despite any disabilities or language barriers.



Working with the Case Western Reserve University School of Medicine, UTech is implementing a feature in Canvas—iSeek Search—which allows students and faculty to do keyword searches in the curriculum system.

zoom

UTech is rolling out multiple classrooms across campus as Zoom Rooms to allow faculty, administrators and students the ability to engage and collaborate more easily with colleagues both in the classroom and around the world.

3,809,675,848,848,510 - Bytes of research data stored by UTech research storage systems.
6,750,000 - Computational jobs run in UTech High Performance Computing clusters during 2017.

A Research University

Initiative III promotes the enhancement of research and innovative academics by improving all aspects of research at CWRU. The data numbers and success stories demonstrate that UTech is continuously seeking new ways to excel in research and creative activity:

UTech worked with the School of Medicine and the Office of Research Technology Management to secure the REDCap (Research Electronic Data Capture) web application used for online and offline data capture for research studies at CWRU. UTech moved the REDCap service to the Secure Research Environment and assumed shared management responsibilities.



In response to the increasing need for faculty to work with enormous amounts of data, UTech designed and deployed a new Research Dedicated Storage service that provides the needed storage capacity at a performance, availability and cost target that is conducive to research. To date, nine RDS systems are deployed totaling approximately one petabyte of storage.



UTech supports more than 100 different commercial and open source software applications in its High Performance Computing clusters to facilitate compute-intensive research.



UTech works extensively with research labs in both the Case School of Engineering and the School of Medicine that utilize health care records and diagnostic tools such as magnetic resonance imaging for their work. The High Performance Computing system and the Secure Research Environment both enable storing and processing data that can be interrogated by statistical methods to enable discoveries in the field of medicine. This includes activities such as the detection of prostate cancer through Artificial Intelligence and identifying genetic variants that protect humans against Alzheimer's disease.



Helping Healthcare React

Sudden Unexpected Death in Epilepsy (SUDEP) affects around 5,000 epilepsy sufferers in the U.S. annually. Death results from profound breathing and/or cardiovascular dysfunction, but the mechanisms underlying failure and the risk factors identifying those most at risk are unknown. The Center for SUDEP Research works to address this issue, which requires the collection of dozens of terabytes of raw data, annotations and video for analysis that spans dozens of gigabytes per person. To facilitate the optimal use of CWRU cyber infrastructure, UTech helps manage the center's data workflow and provided a new storage system and application-hosting environment that scales to the needs of the SUDEP research community at large.

UTech's Secure Research Environment provides a secure computing, storage and analysis service for 484 users in nine different research groups at CWRU. The SRE now holds 208,600,000,000,000 bytes of sensitive data used for research purposes.

SRE

UTech's Research Data Archival service was expanded to an uncompressed capacity of 1.6 PB for research data not requiring real-time access.

1.6

UTech is working with campus partners to help formulate and implement data management plans that allow for the archiving and preservation of research data. Activities such as this allow partners to focus on research and less on administrative tasks.



\$249,887,984 - Total dollars of research funding held by users of research computing services at CWRU.
150,633,093,005,312 - Bytes of data transferred through the UTech Science DMZ annually.

Raising the Approvals Bar

UTech launched "SpartaIRB" to replace older software for research staff. The new system handles Institutional Review Board (IRB) submissions, review and approvals for human subjects research at CWRU and University Hospitals. The new system, designed to be more user-friendly and to make the process of submitting to the IRB easier and more straightforward, had been two years in the making with committed efforts from many people at both organizations.

\$36M

In the past year, UTech has participated in 14 external funding efforts with budgets totaling \$36 million.

AWS

UTech collaborated with Case School of Engineering researchers to create server infrastructure in Amazon Web Services for a project involving the Department of Energy's Pacific Northwest National Laboratory.

iLAB

Supported by UTech, the iLab system is now used by 25 research core facilities to provide a unified billing and reporting system.



At the DataFest event, UTech provided HPC access to the student participants and on-site assistance during the weekend competition.



UTech worked with the Solar Durability and Lifetime Extension Research Center to provide a new data lake platform for storing and processing real time data from multiple power plant sites, experimental data and retrospective data from manufacturers.



UTech built the Gender Equity Index system to collect data from universities and colleges and report on their progress. Reporting includes university scores on five different factors, benchmark data for peer institutions and comparisons to national averages.



The university uses its Internet2 membership to connect CWRU to the national research and education community along with discounted offers for software and services offered via the Internet2 Net+ program.



UTech deployed iThenticate—a plagiarism prevention service—to provide researchers the ability to check manuscripts and funding proposals for proper citation and originality of content.

Setting Up Storage

Red Hen Lab, a global laboratory and consortium for research based at CWRU and UCLA, relied on UTech to set up a massive new storage server that's part of the CWRU High Performance Computing (HPC) cluster. Red Hen is using the new storage server and HPC, along with specialized software supported by UTech, in its fourth Google Summer of Code, funded by Google, with 14 coders to advance their research.



UTech hosted Cyberinfrastructure Day 2018, an opportunity for CWRU faculty and students to share their compute-intensive research with the campus community.

562,031,861,212,119 - Bytes of data stored in CWRU Google Drive.
118,115,036,613,837 - Bytes of data stored in CWRU Gmail.

Robust Infrastructure = Positive User Experiences

Initiative IV strengthens CWRU's IT foundations, infrastructure and operations to enhance the user experience. UTech strives to provide the best products and tools to meet the rising technology needs from the campus community. These facts and stories highlight UTech's emphasis on strong and secure infrastructure and ongoing systems for collaboration and communication:



UTech engineers upgraded the firewalls of the two local data centers to secure and protect the university's information stored there.



UTech modified Charity Choice administrative pages to allow entry of donations made via check, making it easier for employees to participate in this annual fundraising event.



The CWRU Google Map was upgraded by UTech to a more modern version that provides a better user experience on both mobile devices and computers. The new version provides an interface that is easier to use and a map that is more reliable.

Serving the Campus Community

UTech strives to deliver excellent client experiences to the campus community. For example:

- UTech helped University Marketing + Communications during an unexpected flood in Adelbert Hall. UTech staff quickly and safely rescued a myriad of wires, plugs, monitors and computers—likely saving significant dollars in replacement fees for equipment and time lost to corrupted files.
- Several staff members came together to provide emergency diagnostics on a malfunctioning computer, followed by hard drive extraction, for an associate dean at the Case School of Engineering—during the university's closure at the end of December 2017.



UTech implemented the Schedule of Classes WorkCenter for administrative staff, which provides users a single place to access information needed to schedule classes.



The Terra Dotta software for International Student Services and Human Resource Services was implemented by UTech to create an interface from Student Information Systems to provide the most current international student biographic and academic information for reporting to the Student and Exchange Visitor Information System.

Recognizing Excellence

A routine accreditation check turned into cause for celebration at the Animal Resource Center, following a very successful site visit by a fact-finding team. Special attention was called to commend the center for IT upgrades to computer- and tablet-based technologies and more efficient electronic management of animals and their cages. UTech led the charge for these technology upgrades.

344,756,025 - Email messages passed through spam/virus filtering system in the past year.
1,268,027 - End-user minutes saved by Single Sign-On automation per year.



UTech worked with the School of Law to completely redesign the Intranet on a new server with an up-to-date Content Management System. The new site uses Single Sign-On for more convenient and secure access.

75%

UTech upgraded the network switch infrastructure in 75% of CWRU's academic buildings, enhancing network management.

UTech added new codes to the Human Capital Management system to allow HR to track and report on FMLA employee information.

FMLA



UTech created an online process and database for faculty information at the College of Arts and Sciences to use to report their annual academic activity to the Dean's Office.

An Access Services integration solution was redesigned by UTech to allow systems to talk directly with each other, providing more real-time information and less chance for errors.



17

UTech upgraded the university to OnBase 17, providing a new interface and augmented browser support for campus users. OnBase is used for secure document management.

In a campus-wide effort, UTech implemented Google Groups to replace Sympa for creation of electronic mailing lists.



In collaboration with the Office of the Provost, UTech, all the Schools within the university and select departments are building a Faculty Information System to allow for a single source of faculty data, increased security of data and enhanced reporting capabilities.



Giving SIS an Upgrade

The Student Information System is turning a new page in summer 2018. In addition to updating the system with the only upgrade released by the vendor since CWRU went live in 2008, the cross-functional team used this opportunity to make key investments to improve overall system functionality. Key benefits of the upgrade and improvements include:

- Homepages that are more modern and intuitive
- Easier requests for class permissions and approvals
- Real-time account statements
- Preferred name, personal pronoun and gender identity options for students

The upgrade will be implemented before students return for the fall semester.



15,000+ - Individuals now using Duo Security two-factor authentication at CWRU.

Above the "Risk" Curve

Initiative V focuses on information security at CWRU. To provide secure technology and protect the university's information, research and data, UTech manages risk and implements comprehensive policies, controls and practices. These highlights demonstrate UTech's commitment to delivering on this important initiative:



63,681 - Email viruses deleted daily by the CWRU spam and virus filtering system.

Celebrating Cyber Security Month

October is National Cyber Security Awareness Month. Data breaches, malware and viruses were very much in the news in the time leading up to October 2017. UTech leveraged the aware atmosphere to deliver four information-packed weeks to the university in a variety of media, from newsletters and emails to posters and digital ads.

Week 1: Learn about Social Engineering/Phishing Attacks

Week 2: Enhance Your Mobile Device Security

Week 3: Performing a Personal Security Audit

Week 4: DuoSecurity Two-Factor Authentication

Delivering the Last Word in Password Management

In its continuing mission to bolster the state of CWRU cyber security, UTech has started to deploy the password utility Last Pass. This tool enhances security and combats common password issues such as reusing one over multiple sites, helping users apply solidly complex passwords. One master password or passphrase set by the user grants access to a LastPass account, which in turn remembers (or generates) the passwords for any sites kept in its "vault" for each user, to enable easy and secure log-ins. LastPass combines with Duo Security two-factor authentication to protect access to the password vault.

Expanding Two-Factor Authentication

UTech achieved a major milestone by adding the use of two-factor authentication to two PeopleSoft systems, Human Capital Management and Financials along with previously implemented VPN. Duo offers extra protection in the form of adding another ID verification to users' network credentials keeping CWRU accounts, data and systems more secure. Nearly half a year's worth of communications prepped and primed the community, starting with Cyber Security Month in October 2017. By the go-live date in early February, thousands of users had been successfully set up to access Duo Security.

Regional Collaboration to Security Threats

CWRU, UTech and Cleveland Clinic Foundation have been leading sponsors to the Northeast Ohio Cyber Consortium, a cross-industry cyber defense threat sharing group. CWRU has hosted two meetings for the regional group, and is actively developing relationships with information security professionals across the region with the goal of strengthening the resilience of corporations in the Cleveland-Akron area to respond to cyber attacks.

36 - Buildings received network upgrades in fiscal year 2017/2018. 94 switches were replaced during this process.
66,373 - Unique wireless devices connected to CWRU-operated wireless networks in fiscal year 2017/2018.

Expanding IT Success

Initiative VI highlights the importance of improving access and availability to information and data for the university community. To succeed, UTech will upgrade the business process of managing and securing the important content created by the students, faculty and staff at CWRU. Here are the facts:

Members of the UTech staff are active in the CWRU Compliance Committee and participated on the Compliance Committee Policy Life Cycle Task Force.



UTech engaged with the Jack, Joseph and Morton Mandel School of Applied Social Sciences to use OnBase for assessing fidelity to evidence-based practices (EBPs). OnBase will calculate scores, facilitate inter-rater reliability/consensus and produce reporting for the school.



With the support of UTech, the Office of Planned Giving adopted OnBase to implement an electronic file cabinet to replace paper files and create a system of template documents including new trusts and annuity contracts.



The KeyManager project is under way and UTech is using OnBase to improve the overall process of requesting and receiving office keys campus-wide.



Easing Documentation for Schools

The Office of the Provost requested a way to handle document management requirements using OnBase. This project resulted in a proposed OnBase form developed by UTech that can be used to digitally facilitate faculty actions, including appointments, promotions and tenure. The Case School of Engineering has volunteered to pilot the tool, with an eye toward migrating it to other Schools in the future.

36TB - Amount of data that crosses the campus backbone network (excluding Science DMZ) in an average day.
1,000,000 - Critical malicious connection attempts blocked by the CWRU campus Internet firewalls per month.



UTech continues operational support for Box and Google Docs for the university community. Both systems provide the university community with options for storing and sharing files.



UTech will help the new Health Education Campus be paperless by maintaining OnBase for employees in the new building.



UTech supported the Association to Advance Collegiate Schools of Business accreditation process, including focus on data integrity and reporting for faculty qualifications and intellectual contributions.



The Governance Board works on a monthly basis with UTech to move all electronic documents into OnBase—representation includes the Office of the Provost, Department of Human Resources, Case School of Engineering, Office of Student Affairs, CWRU School of Medicine and the Office of General Counsel.



UTech is supporting Accounts Payable at CWRU in using OnBase to identify and implement improvements with customer indexing panel, immediate pay and modifications to workflow.

All About Data

A collaborative effort between UTech and the university's Chief Business Officers is addressing improved data sharing and reporting. The group has been working together to develop policy and methods for efficiently consolidating and sharing data points via three sub-groups established as working committees for Student Information System data, Financials and Accounts Payable data and Human Capital Management data. The group is driving towards a university data dashboard and preparing for a data lake solution.

80 - Average number of IT-related contracts reviewed monthly by UTech to mitigate risk.

An Investment in the Future

Initiative VII focuses on UTech's ability to develop and sustain a funding model for IT at Case Western Reserve University. By investing in and funding information technology in a strategic way, the university community thrives. Here are some examples of UTech's strategic approach:

In collaboration with Procurement and Distribution Services, UTech entered into strategic partnership agreements with Cisco, Logicalis and MCPc to procure IT equipment and services for the university. These and other strategic agreements have the potential to yield savings to the university in excess of \$450,000 that are repurposed for strategic IT spend.



In support of fiscal responsibility, UTech instituted a new due diligence process for any expenditure in excess of \$10,000 as well as all hiring positions. The manager responsible for a service and/or expenditure must submit a proposal for senior leadership review that outlines the opportunity or challenge, the recommendation and how it aligns with UTech's Strategic Plan. This process provides transparency, ensures that alternatives are appropriately evaluated and the value to the user community is clearly articulated. Approximately 330 such proposals have been reviewed since implementation.

\$10K

To enhance financial insight into factors affecting the cost and quality of IT services, UTech is implementing a Technology Business Management model to enhance reporting and cost transparency of IT spend using terminology and context of various stakeholders. This year, transparency at the finance cost category level was implemented.



As a result of centralizing the IT spend, UTech identified opportunities to optimize the university's investment in IT by pooling resources to support staff training, and leveraging existing enterprise systems, such as monitoring, content management and room reservations.



Finding a Better Process

UTech developed and implemented a new, inclusive technology capital planning process. In advance of rolling out the process, UTech worked with university leaders to ensure alignment with CWRU's plans and procedures. For planning purposes, all UTech leaders were asked to input capital technology projects with an annual estimated cost greater than \$50,000 for their areas of responsibility into a multi-year IT Refresh Plan. Once compiled, managers were asked to submit proposals for review and comment by their peers and ultimate prioritization by senior leadership. This improved process was designed to be more transparent and inclusive of all leaders in the new central IT organization. From the \$9.2M originally proposed, UTech reduced the capital request to \$6.5M by refining the service model in residence halls to better align with students' needs and deferring initiatives that would not significantly impact the university community.

IT Procurement Review

UTech and University Marketing and Communications, in collaboration with Procurement and Distribution Services and the Office of General Counsel, worked to implement a university-wide change to the process of procuring IT related items. To mitigate risk to the university, UTech is now responsible for reviewing any university contract that includes an IT or IT-related component, prior to such contract being executed. Risk is measured in many forms, including data security, finances and compliance. This process change helps to ensure that data is secure, good financial stewardship is practiced throughout the university, the university's brand is protected and the university is meeting accessibility standards for all.

UTech is in the process of approving funding for the fiscal year of the ERP hosting contract, which focuses on improving service and performance levels, reducing risks and network costs, enhancing business continuity, moving to a more virtualized infrastructure and allowing for flexibility in decommissioning unsupported ERP applications. UTech is partnering with the Office of Procurement and Distribution Services and the ERP functional owners (HR, Finance and Registrar) to perform due diligence and recommend next steps.



UTech performs an annual Oracle maintenance renewal to maintain and support all of the PeopleSoft Applications, including the Student Information System, Human Capital Management System, Supply Chain and Financials Management and the Enterprise Performance Management systems.



UTech assembled a cross-functional team to develop hardware standards to meet the university's administrative needs. This team worked with all the CWRU Schools as well as MCPc to develop five standard laptop and desktop configurations. This effort allowed UTech to negotiate lower hardware prices along with better and faster service for clients. UTech anticipates a savings of \$180,000 on PC purchases for the upcoming fiscal year.

\$180K

200+ - Professionals employed by UTech to serve the technology needs of the CWRU community.

People Power

Initiative VIII asks UTech to closely examine the team division-wide and how CWRU attracts and retains highly effective employees. It is critical to UTech's success to ensure that people come first. There are many examples of how that happens at UTech—these are just a few:

30

UTech welcomed 30 new employees to the division since the beginning of 2018. This represents a diverse group of staff, both in experience and ethnic background.



UTech fosters a teamwork environment, hosting "All Hands" meetings to share the latest challenges and opportunities within the division. At the last meeting, Professor Anant Madabhushi, Director of the Center for Computational Imaging and Personalized Diagnostics, gave a presentation revealing how Research Computing and Cyberinfrastructure and the division in general helps advance research in medical fields.



Many employee recognition programs exist for both service honorees and star performers, including acknowledgment in the *[U]Tech Connect* e-newsletter and on digital signage in Crawford Hall.

DiSC

In an effort to continue to improve work productivity, teamwork and communication, UTech provides opportunities to participate in the DiSC (Dominance. Influence. Steadiness. Conscientiousness.) training program. This program helps employees understand different work styles and learn techniques and communications skills for interacting with coworkers.



UTech received the "Best Places to Work in IT" Award from Digital Edge 50 for being an organization with digital transformation initiatives that have significant, measurable business impact.



Many staff-developed "Communities of Interest" exist within UTech, like the web developers group, to help exchange information, obtain answers to questions or problems, improve understanding of a subject and to share common passions.



In a continuing effort to promote talent from within and encourage internal mobility, UTech provides announcements to the staff concerning internal job opportunities.

2,000 - Hours of professional development logged by UTech staff over the last fiscal year.

89%

UTech on-boards employees by using a buddy system—89% of recent participants indicated that the buddy system helped them understand the culture of their department and of the larger organization.



The [U]Tech Spirit eStore was launched during the holidays to provide employees the opportunity to purchase branded apparel and other items.



Professional development is a win-win for our partners across the university and UTech staff. UTech leverages professional development to continue to build a strong, motivated team of professionals that are able to more quickly meet the needs of the university and provide improved services.

80

This year, UTech partnered with Weatherhead Executive Education to provide over 80 days of training to the UTech team.

Supporting Women in Technology

The Women in Technology group was originally founded in 2012, and was reborn in 2017 after not convening for a couple of years. Its return was guided by the first round of UTech staff who participated in the Leadership Lab for Women in STEM (Science, Technology, Engineering and Math careers) at the Weatherhead School of Management. UTech staff reported feeling satisfied with the revitalization of the group, which moving forward has several events—including in-depth discussions, networking, shared book readings and brainstorming sessions—planned for each year.

United Front

Initiative IX highlights the advances made by UTech to centralize IT services and resources at CWRU. This is important because it allows UTech to reduce and effectively manage the risk profile of the university, leverage best practices and improve the overall IT experience for the campus community. These examples and stories also demonstrate how UTech is optimizing the university's investment in IT:



After various audits and meetings, UTech completed the access control procedure with both CWRU Police and Safety and Facilities Support to ensure limited physical access to CWRU data centers.



UTech began an initiative to create a "Working Across Boundaries" program within the division to assess the integration of support services across campus. The program also is evaluating IT services on campus to explore possible collaboration and consolidation efforts—allowing UTech to gain staff efficiencies and improve services.



By transitioning the Windows and Linux server operating system patching from the Case School of Engineering to the Cloud Services team, duplication of efforts was eliminated in this important maintenance activity.



UTech developed a set of Dell hardware standards for staff on campus, resulting in a price discount as well as quicker delivery times.

Serving the University

UTech worked with multiple campus partners to integrate the university's main room reservations systems—EMS (non-academic spaces) and Astra (University Registrar academic spaces)—in order to develop an easy-to-use, effective system.

Following the integration, users no longer have to toggle between applications and sort through un-collatable results. Updating class data from the Student Information System used to take more than an hour and was done once daily during the night; the integration reduced this run time to less than one minute and updates now occur every 45 minutes with the ability to be run on demand during peak times.

This project demonstrates how UTech can streamline processes and systems, eliminate redundancy, transition from local installations to hosted solutions and deliver better functionality to the university community while saving tens of thousands of dollars in the long run.

Transitioning to CampusGroups

Working with the Office of Student Affairs, UTech is handling the technical implementation of CampusGroups, which is replacing OrgSync as the university's community engagement platform. Some of the many benefits include:

- Reduce redundancy by replacing other, more expensive and less productive campus solutions
- Ability to tie in the newly integrated room reservation system to a campus-wide events calendar
- Easier assessment of the student experience
- Better and easier to use mobile interface

\$100K - Amount invested in infrastructure for research as a result of centralization.

Streaming the Race

UTech's MediaVision department provides AV equipment and assistance for events and rooms/facilities, plus full-scale video products, for the entire university community. In April 2018, MediaVision live streamed the Hudson Relays, a marathon relay race and an annual tradition on campus for more than 100 years. The production involved seven cameras, 2,000 feet of cable, integration of new signal technology and more than a dozen people, covering the entire campus. The stream was enjoyed by hundreds of people across the country and tallied more than 1,000 views.



A Google Suite support plan was created to outline a process to better manage all of the supported G Suite applications and important unsupported applications for the campus. The plan highlights the collaborative spirit of UTech, as the service managers and resolver teams include employees from across the division, including staff working within School-based UTech departments.



UTech's Cloud Governance Committee continues to bring value to campus by addressing needs and requests while maintaining a secure and consistent campus environment. Several cloud features launched, including Google Team Drive, Google Drive Sync and Box Drive.



UTech's VYVX Broadcast Fiber Services is a worldwide fiber network used for the transportation of high-quality, real-time video and audio. This connection allows CWRU to offer exclusive, one-on-one interviews with university researchers, experts and executives.

Vision, Mission + Core Values

Mission - We support and enhance the academic and research mission of Case Western Reserve University through responsive service, enabling infrastructure, effective administrative systems and innovative solutions.

Vision - To be a preeminent organization that empowers CWRU's transformational teaching, learning and research.

Core Values

Adaptability - We are committed to remaining flexible and responsive to change. We value the input from all global sectors that employ IT, higher education colleagues and those across our own university. We execute on existing and new initiatives with a focus on excellence in assisting university constituents with teaching, learning and discovery.

Service Excellence - Serving students, faculty and staff is our reason for existing. We continually seek to understand the needs of those who depend on us and strive to exceed their expectations.

Collaboration - We work in a collaborative, cooperative, team-driven environment that encourages both individual and shared excellence in striving to achieve our goals. We value the mutual respect that true teamwork entails.

Innovation - We thrive in a culture that is dynamic. We seek, develop and test new ideas to advance the university. Because there is often no one right answer to a question, we rely on experimentation to drive many efforts in search of solutions and continuous improvement.

Integrity - We revere honesty and adhere to the highest ethical standards in our daily work. We strive for transparency in our operations.