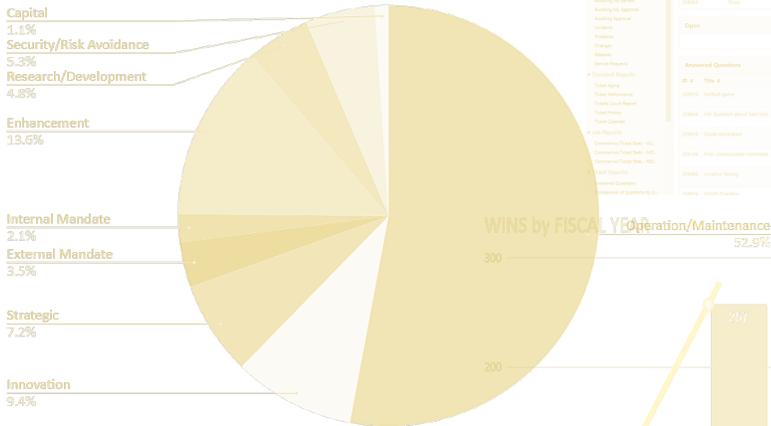


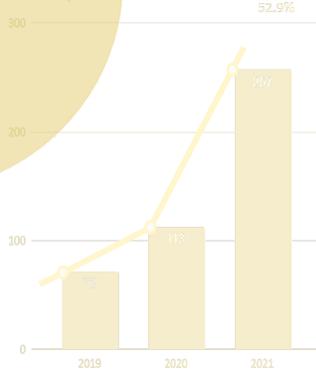
INFORMATION TECHNOLOGIES UNIVERSITY OF DELAWARE

Annual Report Fiscal Years 2020 & 2021

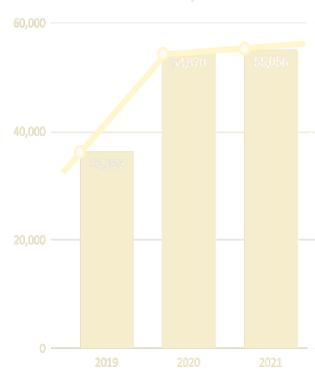
FY2021 PROJECTS BY BUSINESS DRIVER



WINS by FISCAL YEAR



HELPDESK REQUESTS by FISCAL YEAR



ID #	Title #	Reporter Name #	Assigned #	Created #	Status #
123456	123456	John Doe	IT Support	2020-10-26 10:00 AM	Open
123457	123457	Jane Smith	College of Arts and Sciences	2020-10-23 09:00 AM	Open

ID #	Title #	What type of information #	Reporter Name #	How long you waited #	Status #	Created #	Updated #	Resolved By #
123458	123458	Category Search	John Doe	Other	Closed	2020-10-26 10:00 AM	2020-10-26 10:00 AM	IT Support
123459	123459	IT Support About My Issue	Jane Smith	Self	Closed	2020-10-23 09:00 AM	2020-10-23 09:00 AM	IT Support
123460	123460	Category Health & Safety	John Doe	Self	Closed	2020-10-23 09:00 AM	2020-10-23 09:00 AM	IT Support
123461	123461	Category Health & Safety	Jane Smith	Health/Wellness	Closed	2020-10-23 09:00 AM	2020-10-23 09:00 AM	IT Support
123462	123462	Category Health & Safety	John Doe	Self	Open	2020-10-23 09:00 AM	2020-10-23 09:00 AM	IT Support
123463	123463	Category Health & Safety	Jane Smith	Self	Open	2020-10-23 09:00 AM	2020-10-23 09:00 AM	IT Support





MESSAGE FROM THE VP OF IT AND CIO

Information Technologies is pleased to present this annual report. While this report in many ways will appear like those prior, it is imbued with the reality of COVID-19's impact on our University community and world. As the health crisis required all UDIT staff to provide unprecedented support to ensuring academic and business continuity, this report also uniquely spans two fiscal years and includes an overview of IT's pandemic response.

The impact of the pandemic on our institution and members of our organization has yet to be fully realized. What is clear, however, is that the confidence, commitment, creativity, and expertise of the Information Technologies team—encompassed within the equally resilient efforts of our UD community—has been critical to UD's navigation of the crisis. While individual efforts go unmentioned here, they are celebrated and are not forgotten. Those efforts have built the stage upon which UDIT's progress and accomplishments are acknowledged and shared in this report.

Both now and as we look ahead, UDIT remains committed to UD's IT Strategic Plan; our community; and advancing the mission, vision, and values of our institution. We remain committed to the continued provisioning and support of UD's IT architecture, infrastructure, information and academic technologies, and services that support research, teaching, and learning at UD. We continue to affirm our commitment to diversity, equity, and inclusion. And while we know many IT-related needs and opportunities lie ahead this coming year, we remain committed to engaging these opportunities and meeting these challenges with you, together.

Sincerely,

Sharon P. Pitt

Vice President of Information Technologies and Chief Information Officer

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ONLINE RESOURCES

[Information Technologies](#)

[IT Strategic Plan](#)

[IT Governance](#)

[IT Project Management](#)

[IT Service Portal](#)

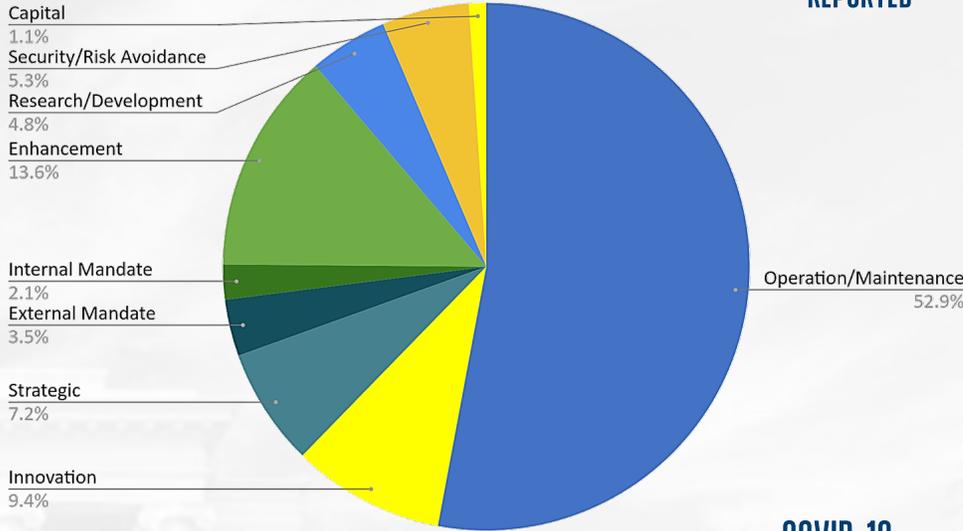


IMPACT STATISTICS

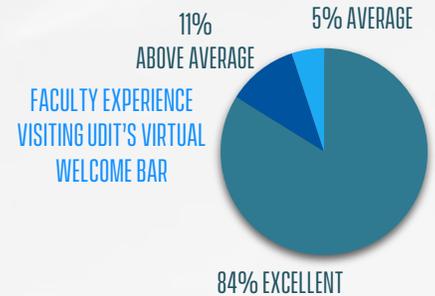
TOTAL IT WINS **113** FY2020 **257** FY2021

TOTAL ACTIVE/COMPLETED IT PROJECTS **189** FY2020 **374** FY2021

FY2021 PROJECTS by BUSINESS DRIVER



61.1% **↑** **14,280**
OVER 2019 PHISHING EMAILS REPORTED



FACULTY EXPERIENCE VISITING UDI'S VIRTUAL WELCOME BAR

NETWORK & INFRASTRUCTURE

100 GBPS CONNECTION +
7 FIREWALLS +
1 DMZ + 1 DTN + 3 HPCS

COVID-19

35 completed projects
3 active projects
72 enterprise, major application actions
542 webinars
7 graduations in Delaware Stadium
> 2,000 courses transitioned online
~2,300 registrations for instructor workshops
14% full-time + **11 FTE** part-time workforce reduction

SUPPORT FOR 16 RESEARCH GRANTS

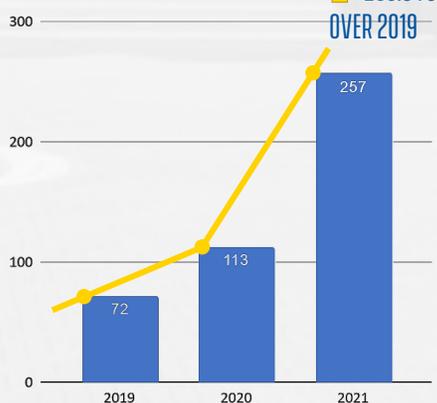


ZOOM in FY2021

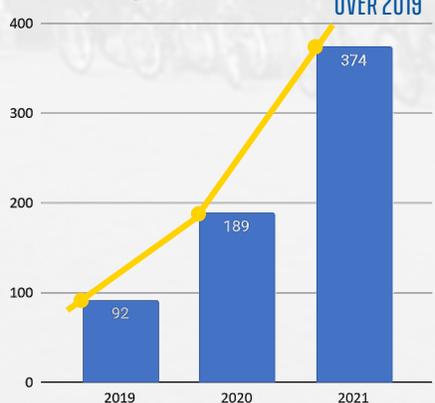
41,940 CLIENTS
1,319,099 MEETINGS

in TDx
579 KNOWLEDGE ARTICLES,
184 IT SERVICES & **15** CLIENT APPS

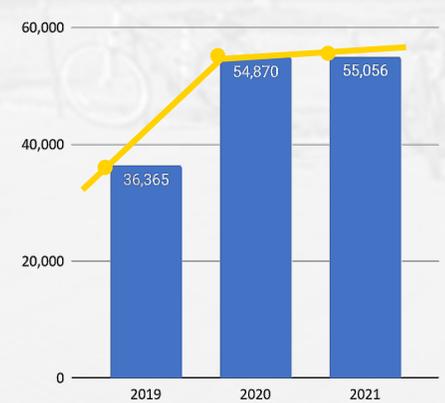
WINS by FISCAL YEAR



PROJECTS by FISCAL YEAR



IT SUPPORT CENTER REQUESTS by FISCAL YEAR



This year’s report presents the vital and determinative progress made over the past 24 months by UD’s Information Technologies (UDIT) organization in the strategic and customized support for the entire Blue Hen community. This progress proved seminal to ensuring institutional continuity during the COVID-19 health crisis while engaging new opportunities and developing innovations and approaches to technology integration. These advances are immediately and positively impacting how UD works, conducts research, builds knowledge, and extends its reach through online, hybrid, and face-to-face activities locally and around the world.

Exemplified in the 370 completed IT Wins and 479 IT Projects (active, completed, requested), the work accomplished by UDIT was critical to successfully realizing elements of the IT Strategic Plan and supporting all aspects of the institution as it navigated the pandemic. Amidst the challenges levied by COVID-19, UDIT staff worked tirelessly to ensure continuity of remote work, teaching, and learning while forwarding cultural change and continuing to invest in UDIT’s mission and partnerships.

 COMMITTED TO...

The University’s Mission & IT Strategic Plan

UD’s Information Technologies (UDIT) organization remains committed to the University of Delaware’s mission and strategic priorities through advancement of UD’s IT Strategic Plan. The [IT Strategic Plan](#) provides a framework to set annual priorities and align the efforts of UD’s IT organizations and is informed by University initiatives. To date, and in collaboration across the institution, UDIT is on track or has completed 48 of the plan’s 76 major activities. The COVID-19 pandemic negatively impacted 30 major activities while accelerating 13. An update of the work completed toward the plan’s four strategic goals, as well as a high-level assessment of the pandemic’s impact on major activities, is provided in the report section titled **IT STRATEGIC PLAN**. Beginning July of 2022, UDIT will conduct a full review of the IT Strategic Plan to ensure continued alignment with UD needs related to the pandemic and the University’s strategic planning activities currently underway.

 **Advancing UDIT’s Mission**

UD’s Information Technologies provides the University with a robust technology environment that allows students, faculty, and staff to pursue academic studies, conduct top-flight research, and manage university operations easily and effectively. Amidst the far-reaching impact of the pandemic, UDIT continued to make strides in the areas of diversity, equity, and inclusion (DEI); structural and operational efficiencies; and organizational bench strength while growing its portfolio of services, technologies, and tools in support of its partners and UD’s mission and vision. The **IT STRATEGIC PLAN** showcases how some UD faculty and administrative areas are partnering with UDIT to advance their instructional or operational goals through the adoption of technologies.

IT WINS with *High or Medium Impact*

94.5%
FY2020, N=113

96.8%
FY2021, N=257

IT WINS by

IT STRATEGIC PLAN GOAL	FY2020	FY2021
Enable Administration Excellence	39	156
Support Research and Scholarship	5	4
Facilitate Student Learning and Success	33	31
Optimize IT Services	36	66

IT WINS by

STRATEGIC AREA	FY2020	FY2021
Infrastructure/Core Services	65	189
Organization/Personnel	1	2
Research	1	3
Security/Risk	8	26
Strategic Execution	15	13
Teaching/Learning	23	24

DIVERSITY AND INCLUSION

UDIT recognizes the importance and benefits of diversity and inclusion in higher education and is committed to ensuring that the staff of UDIT reflects the diversity of the communities it serves. This year, UDIT offers a longitudinal view of our efforts and the impact of COVID-19 financial measures on those efforts (next page). 
(Source: Human Resources Official Extract of July 1, 2021)



Expanding and Supporting Partnerships

UDIT is committed to expanding and supporting our partnerships. Seen as a valued and strategic approach to the adoption, integration, and successful implementation of IT services and support at UD, partnerships enable UDIT to listen, learn, and respond to the IT needs and objectives of UD faculty, staff, and students. In FY2020 & 2021, UDIT engaged in 136 academic-focused IT projects and 238 IT administrative projects in support of our partners. Maintaining an awareness of the broader community, UDIT also seeks to stay connected with emerging technologies, professional organizations, and partners in other institutions and organizations around the world.



Our Staff

While this report offers statistics related to technology support and services prior to and during the pandemic, they can never truly capture the effort and sacrifice—both personally and professionally—required of UDIT staff to safeguard UDIT’s mission regardless of circumstance. UDIT staff remain the backbone of the organization and, despite austere measures that required reductions in force across the University and within UDIT, we remain committed to building and supporting an exceptional workforce through professional opportunities, skill development, knowledge pathways, and flexible return-to-work options. We continue to affirm our commitment to cultivating and providing inclusive environments where everyone is welcomed, valued, and able to contribute to UD’s mission and where everyone feels pride in our organization’s culture and achievements.



Meeting the Challenges of the Year Ahead

This coming fiscal year, UDIT will continue to serve the University while targeting key areas of opportunity and growth. In addition to continued support of partnerships and our Blue Hen community, we will seek to forward the University’s goal of advancing teaching, learning, research, and scholarship through IT and pursue pathways for ensuring that the infrastructure, support, and services related to these areas—along with enterprise and major applications—are sustained going forward. We will continue to focus on enterprise resource planning, all aspects of service and project management, and IT governance.

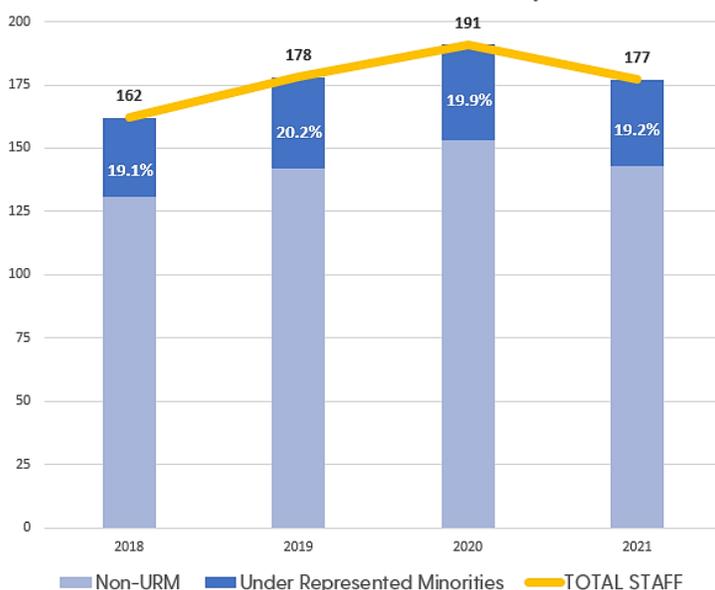
UDIT Supported Academic IT Projects (N=136)

CANR	9
CAS	25
CEHD	10
CEOE	14
CHS	10
COE	26
GRAD-PCS	4
Lerner	13
Libraries	9
Research	14
Other	2

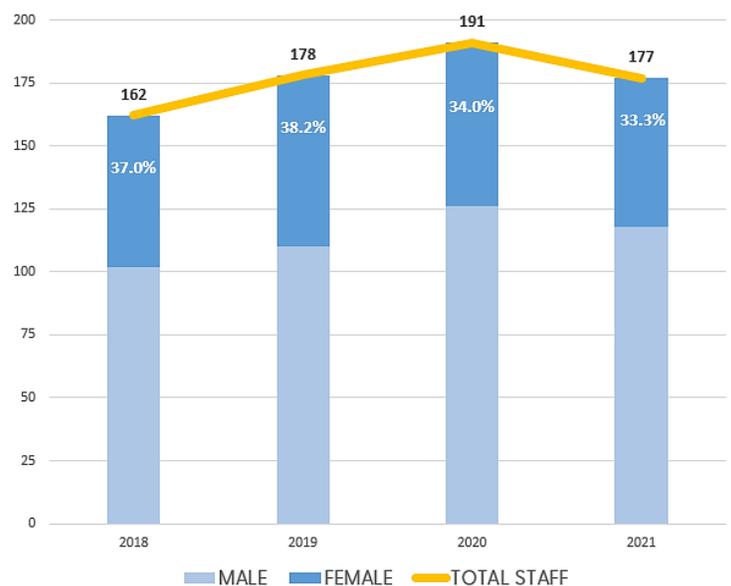
UDIT Supported Administrative IT Projects (N=238)

IT	152
Student Life	14
Enrollment Services	14
Finance	3
Human Resources	13
Auxiliary	14
Athletics	11
Institutional R&E	2
Univ Development	7
Other	8

UDIT STAFF PRIMARY ETHNICITY by FY



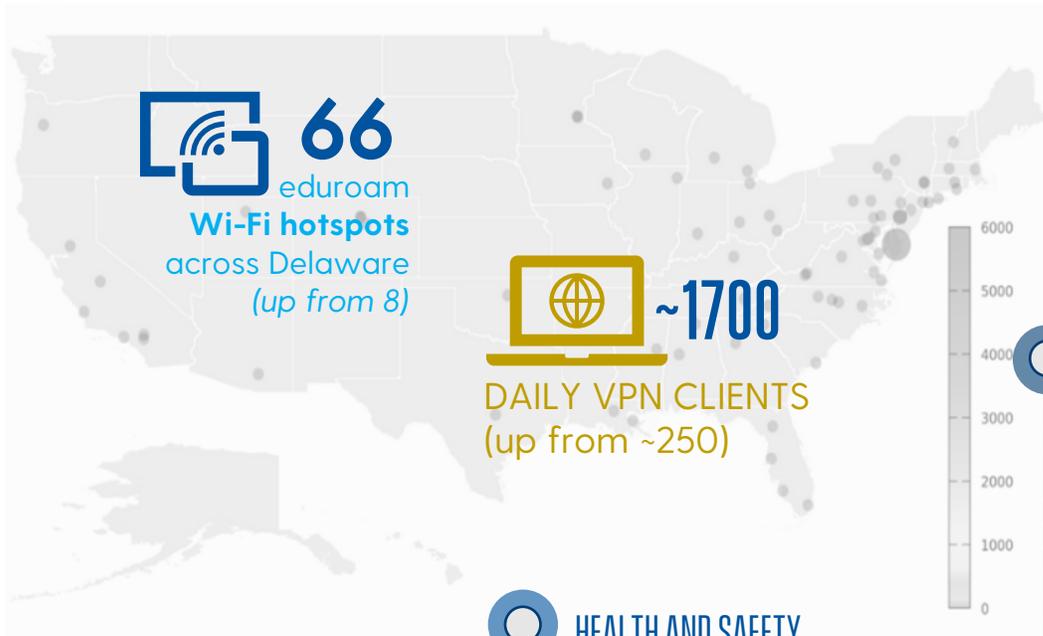
UDIT STAFF GENDER by FY



At the onset of the pandemic, UDIT leaned into its mission like never before and drew upon untapped resources and abilities to undertake the monumental work required to transition the University to a work-from-home, learn-from-home, and teach-from-home environment. Much of this work took place while the crisis was unfolding and confirmed cases were already emerging on UD’s campus. Despite the impacts of the health crisis on both professional and personal lives, UDIT’s response was anticipatory, committed, comprehensive, and effective. Elements of this response are highlighted in this portion of the report, with recognition of the collaborations and partnerships with IT professionals and organizations across the institution who shared, and continue to share, in these efforts.



UDIT EMERGENCY RESPONSE TO THE ONSET OF THE COVID-19 PANDEMIC



EMERGENCY OPERATIONS

- State-of-the-art Zoom room for communication and messaging created within 24 hours of activating UD’s Emergency Operating Center (EOC)
- UDIT advised on critical information security issues and provided security support to UD’s Campus and Public Safety team coordinating the EOC

HEALTH AND SAFETY

- Secure network capability for Student Health Center provided within 24 hours
- Deployed data solution allowing contact tracing and reporting within our campus
- Messaging paths created for occupants of institutional buildings to be shut down temporarily for deep cleaning
- Progressively launched nearly two dozen COVID-19 related projects

UNIVERSITY COMMUNICATIONS

- On-site, centralized call center and email address created for the UD community in less than 24 hours, with second physical call center created in under an hour due to University demand
- Round-the-clock, on-site training of over 130 unique call center volunteers
- TeamDynamix framework developed to track and manage coronavirus email address, including dashboard to report concerns of our faculty, staff, students, parents, community and inform University leadership and messaging
- Support for virtual town halls—event panels and webcasting about the virus and UD response

Between March 11 and March 17, 2020, UDIT developed and delivered...



23 TRAINING SESSIONS for 1,386 INSTRUCTORS and 12 CUSTOM TRAINING SESSIONS for 325 PARTICIPANTS totaling **MORE THAN 40 hours of instruction**

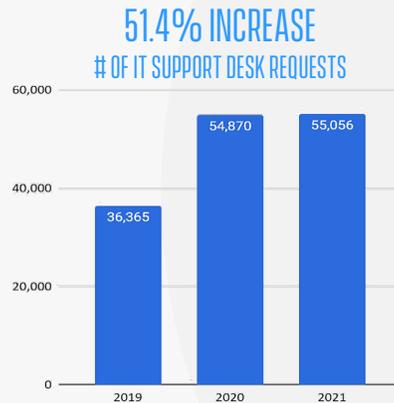


> 2,000 COURSES

Benefit from UDIT resources & services



UD's Health Check & Dashboard created in Qualtrics



Launched Virtual Welcome Bar for Faculty

FACULTY EXPERIENCE:
84% EXCELLENT
11% ABOVE AVERAGE



ADMINISTRATIVE CONTINUITY

Advised on use of IT to support essential operations and our UD community

Increased IP address pools to accommodate growth of VPN usage

Installed equipment to reduce stress on VPN architecture, provide additional capacity, and improve access

Extensive Zoom training provided for faculty, staff, and administrators to enable work from home

Laptops gathered, imaged, and deployed for UD staff use to support operational continuity and work from home

Deployed Zoom phones for UD staff needing to return calls from non-personal lines, including Student Life and Advising

SUPPORTING UDIT

Dashboard created to allow UDIT staff to check-in daily, provide work related information, and quickly access other UDIT team members

Zoom ubiquitously utilized to ensure consistent work communication

ACADEMIC CONTINUITY

Substantially increased course continuity resources to meet online teaching and learning needs in collaboration with Library, Museums and Press; the Center for Teaching and Assessment of Learning; and Professional and Continuing Studies

Provisioning of tools and extensive in-person and online training to support the University's transition to online learning

Expanded proctoring and testing support services and tools

Offered online polling tool (to replace in-classroom iClickers)

Expanded IT Support Center service to 24/7

Support for faculty seeking to innovate assessment strategies offered

Classroom recording support and UD Capture provided in every registrar-scheduled classroom and select college-owned classrooms

Onsite, classroom technicians made available to faculty using classrooms for recordings and support for uploading to Canvas

Expanded eduroam Wi-Fi access, locations

Collaboration with University Police Department and Facilities to ensure faculty access to facilities needed for online instruction

Oversight of software licensing and extended SaaS infrastructure in colleges and departments to provide specialty software as needed

Instructional workshops offered to faculty on use of Zoom, Canvas, and UD Capture

Worked with REN (NYSERNet) and Internet2 partners to confirm routing/peering to all cloud services (e.g., Canvas, TeamDynamix, Zoom) to ensure work from home and teach from home capabilities

Along with 38 COVID-19 related projects, administrative support during the pandemic required UDIT staff, especially IT Enterprise Systems & Cloud Services, to take on over 70 additional critical and time sensitive changes to major systems and enterprise applications including patches, modifications, uploads, exports, extracts, and web form development. Change activities ranged from COVID-19 contact tracing to secure online submission of COVID test results and discrete tracking of essential personnel. Numerous changes were required for registration and student information systems that pertained to registration caps for courses newly moved online, grading, class scheduling, and semester examinations. Extensive finance support was needed to enable and track tuition changes, CARES Act refunds for students, retirement incentive packages, and workforce reductions due to budget shortfalls.

REPURPOSING EDUCATIONAL TECHNOLOGY TOOLS

In addition to support for remote emergency teaching, UDIT brought forward new educational technology tools that supported UD's business continuity and helped to maintain critical partnerships in unprecedented ways. Specifically, the use of Canvas sites and Zoom meetings beyond undergraduate and graduate catalog courses expanded exponentially due to the pandemic. Currently, University business continues effectively despite the need for many personnel to remain at home. Thanks to the availability and support of Zoom and Canvas, the registrar, student tutoring and advising, financial services, housing services, and many other non-academic departments were able to continue uninterrupted service. Being able to use these tools to work as a team and meet with clients on an individual basis allowed University staff to keep up with daily functions.

>70 MAJOR ENTERPRISE APPLICATION ACTIONS PERFORMED



QUALTRICS GENERATED COVID-19 DASHBOARD AND HEALTH CHECK (OCTOBER 2021)



UNIVERSITY OF DELAWARE

In the past two weeks, have you...
(Please check all that apply.)

- Cared for someone who is/was ill with COVID-19 or suspected COVID-19 while not fully vaccinated (defined as at least 2 weeks after COVID-19)
- Been contacted by someone about your possible exposure to COVID-19
- Attended a large gathering with people outside your household without distancing or wearing a mask while not fully vaccinated for COVID-19
- Been in close contact (< 6 feet for 15 minutes or more) with someone who is/was ill with COVID-19 without using appropriate PPE while not fully vaccinated for COVID-19
- Tested positive for COVID-19 and not yet met CDC guidelines related to COVID-19 (since positive test, fever free for 24 hours, cleared to return to work and 72 hours of improving symptoms)
- None of the above

COVID-19 DATA DASHBOARD

CORONAVIRUS

- COVID-19 DATA DASHBOARD
- FREQUENTLY ASKED QUESTIONS
- CAMPUS GUIDELINES
- TESTING, SCREENING, TRACING
- UPDATES PORTAL

UD is sharing information on this site about the status of campus activity this fall and COVID-19 positive cases among members of the campus community to aid in informing our community about public health.

VACCINATION RATES

91%
students are fully vaccinated

87%
employees are fully vaccinated

91%
employees on campus in the last 7 days are fully vaccinated



- Bulk Update-Essential Employee data
- COVID canvassing
- Data Extracts-Category additions for Summer 2020
- Update Check Pre-Reqs Customization due to implementation of PERC
- UDSIS Patches and fixes
- Add Facility ID to fall 2020 exam load
- Add Security Role to list of Staff
- Qualtrics data export
- Essential Employee-add College/VP to view and PeopleSoft page
- Add Standard Meeting Pattern to the scheduled classes
- Use mass update program for return of suspended
- Add Online Courses to nightly Teamworks data synch
- Enhancement request-require upload journals to be routed for approval
- Add Check batch Refunds for students (non Title IV)
- PeopleSoft SFS security access
- Employee Gift form updates to designations, including COVID Employee Relief fund
- CovidAlert: contact tracing application
- Secure online submission of staff COVID test results
- Cashnet-Library Public Borrower Card Payments, formerly an in-person process
- Course Registration (WebReg) modifications to cap for on-line courses and mods to grading basis
- UD PCR Testing Facility data feeds
- Cashnet-Library Education Resources Center-online payment
- Voluntary Retirement program election form

- Modify mass change program to accommodate rate change
- Voluntary Retirement program secure document upload
- CoursesSearch: modify how courses are displayed to more easily identify 'online'
- Retirement Incentive-Update of Paysheets
- Create extract for Point and Click for COVID tracking
- Tracking of essential personnel
- Updating transcript print dates for Fall 2020
- Other Pay Mass Load for volunteer retirement

- Restore Schedule of Classes access for departmental schedulers
- Qualtrics/Signal generation for access to campus
- Adding Winter 2021 to the batch grading basis change process
- Updating transcript print dates for Winter 2021
- Modifications to student refund request for round 2 of CARES funds
- Residence Life report for tracking on campus students/COVID testing

- Zoom provisioning, deprovisioning (Phase I)
- Modifications to student refund request for round 3 of CARES funds
- Revoke Schedule of Classes access for departmental schedulers

FY2021

JULY (Q1)

OCTOBER (Q2)

JANUARY (Q3)

APRIL (Q4)

The onset of the COVID-19 pandemic was swift and brought the unprecedented challenge of moving all UD courses from face-to-face to online while supporting instructors in this emergency transition. UDIT, and especially its [Academic Technology Services](#) (IT-ATS) and [University Media Services](#) (IT-UMS) teams, stepped up to meet this challenge, in addition to the ones that were yet to come. Some of the most significant achievements in support of emergency remote teaching and academic continuity are highlighted here.

EQUIPMENT LENDING

With the move to emergency remote teaching, numerous instructors teaching from home needed access to technology typically found in their classroom. In March 2020, UDIT partnered



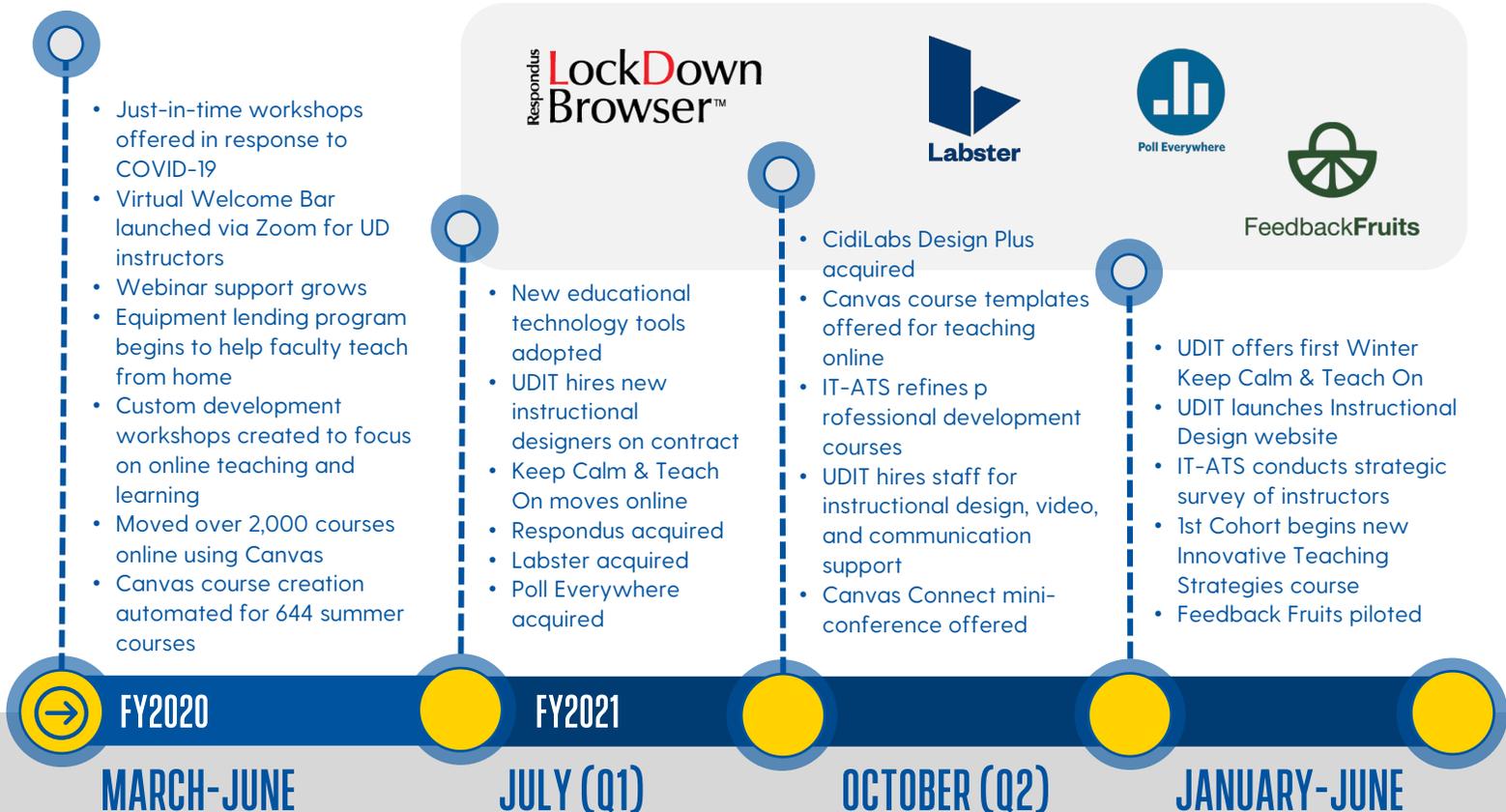
with UD Police to facilitate pickup of document cameras by instructors. The cameras enabled instructors in disciplines such as math, computer science, chemistry, sociology, geography, and biology to capture their handwriting, objects, and illustrations for their students. In August 2020, UDIT began offering higher quality document cameras for fall 2020 courses.

VIRTUAL WELCOME BAR

As it became clear that the pandemic would require a sustained, scalable approach to supporting online learning, UDIT pioneered the use of Zoom as a drop-in point of service



that replicated its on-campus service model. The new service, the [Virtual Welcome Bar](#) (VWB), launched on March 17, 2020, and was welcomed enthusiastically by faculty and staff. The VWB was staffed by IT-ATS consultants during hours identical to the on-campus resource. By joining an open Zoom meeting, instructors and staff could now receive virtual, on-demand assistance. Breakout rooms were available for one-on-one or group sessions.



JUST-IN-TIME CUSTOM WORKSHOPS

The sudden campus closure in March 2020 created an immediate need to prepare all faculty and staff to use UD's primary educational toolset. Anticipating a potential emergency closure, UDIT's Academic Technology Services (IT-ATS) developed and delivered 23 training sessions for 1,386 instructors and 12 custom training sessions for 325 participants between March 11 and March 27, totaling more than 40 hours of instruction. These workshops covered the basics of integrating Canvas, Zoom, and UD Capture and were provided on-campus with a remote access option. Additional workshops and training were and continue to be offered in support of teaching, whether online, hybrid or face-to-face.

→ Workshops & Training

- [Delivering Learning Experiences Online](#)
- [Keep Calm & Teach On](#)
- [Innovative Teaching Strategies](#)
- [One-on-one consultations](#)

INCREASED STAFFING

The use of UD's online toolset by all courses created immediate demand for additional support staff. UDIT initially employed six contractors during summer 2020, eventually increasing its academic support staff from 12 to 22. The majority of these new positions were added to the Instructional Design team, enabling UDIT to provide uniform coverage and specialized service to all colleges by assigning a [designated instructional designer \(ID\)](#) for each college and department.

Once the ID team was fully assembled and designers were assigned to an academic department or program, their roles began to shift from reactive troubleshooting to proactive outreach. IDs partnered with more faculty to engage in longer-term projects and built relationships with departments. With IDs for all credit courses managed centrally through UDIT, instructional design services are now provided at no additional cost to the colleges.

In May 2021, UDIT published the new [Instructional Design Services website](#) to communicate the expanded role of IDs to the University. Instructors can now more easily schedule a one-on-one consultation with an instructional designer and find important resources to improve their own course design. The new site also features a blog called *Instructional Design Spotlight*, where instructional designers describe some of UD's latest ID projects.

WINTER 2021
KEEP CALM & TEACH ON

 **137** = **544** SEATS
TOTAL PARTICIPANTS

Instructors participated
54 in classroom
orientations

Impact of IT-ATS
ID Outreach
(JAN-MAY 2021)

133 
dedicated
course projects

 **72**
SPECIAL PROJECTS

custom
presentations
 **70**

CANVAS COURSE TEMPLATES



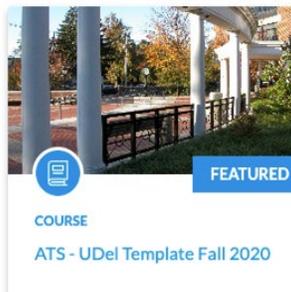
FEATURED

 COURSE
IT-ATS UD Template Summer 2021



FEATURED

 COURSE
ATS - UDel Template Spring 2021



FEATURED

 COURSE
ATS - UDel Template Fall 2020



FEATURED

 COURSE
ATS - UDel Template Winter 2021

ENABLING UNIVERSITY BUSINESS AND PARTNERSHIPS

In addition to support for remote emergency teaching, UDIT brought forward new educational technology tools that supported UD’s business continuity and helped to maintain critical partnerships in equally unprecedented ways. UD’s use of Canvas sites and Zoom meetings diversified and grew significantly. New uses included the New Student Orientation (NSO), New Faculty Orientation (NFO), orientation for the Associate in Arts program, as well as many other program orientation needs. UDIT also experienced an increase in requests for independent study courses and from departments providing professional on-campus development programs that had to quickly move online.

Other uses extended beyond the University and into the broader community, servicing our K-12 and adult communities. Osher Lifelong Learning Institute (OLLI), the largest OLLI program in the country, coordinated by Professional and Continuing Studies (PCS), was able to pivot to completely online and serve as a model for other programs. UDIT was able to help the Professional Development Center for Educators (PDCE) provide professional learning opportunities for K-12 educators throughout the state. It was a priority of the Governor to counter the learning loss that occurred throughout the state as a result of the pandemic by supporting PDCE programs that are now held regularly in Canvas. Additionally, the Early College Credit (ECC) program, which provides outstanding Delaware high school juniors and seniors the opportunity to take free college courses, transitioned to remote delivery using our toolset and continued uninterrupted despite the pandemic.

 **kaltura**
25,900
 peak daily high



MEETING MINUTES



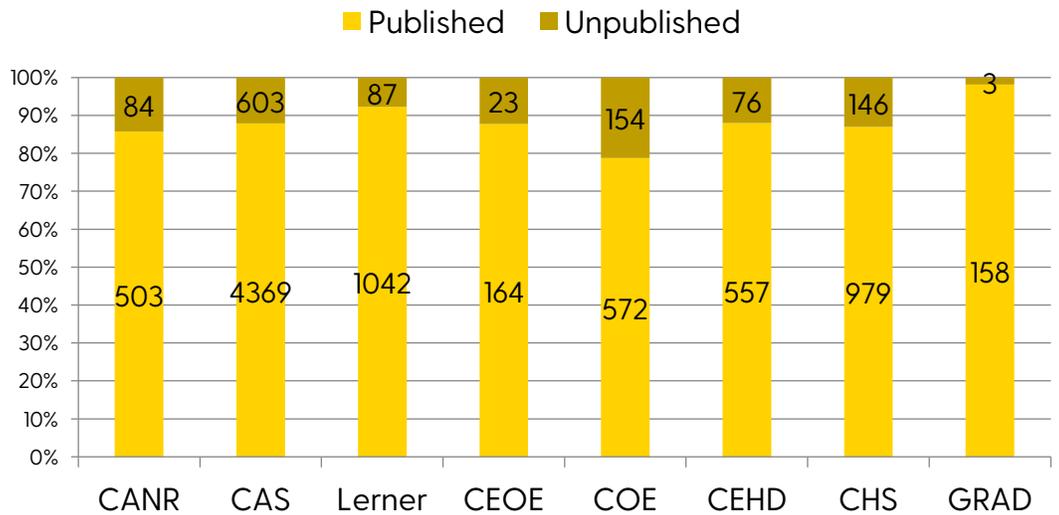
“UD Information Technologies (UDIT) was essential to the work of the Professional Development Center for Educators (PDCE) in the College of Education and Human Development. PDCE contracts with schools and districts to provide direct professional support services to teachers. PDCE is a cost center with all employees paid through fiscal year partnership contracts. UDIT Academic Technology Services helped us to pivot all of our services online and to use the Canvas platform to protect the privacy of our partners and the intellectual property of the Center. We were able to finish all our fiscal year contracts in 2019-20 even though we could not go to our partner schools as planned. We also demonstrated our effectiveness to partners in these virtual services because we could use University technology tools and support. We were able to fully contract new services for the 2020-21 fiscal year. UDIT worked tirelessly with us to enable systems for large-scale Canvas guest registration to accommodate our community partners. If we could not enroll in batch, we would not have been able to meet these community demands. In summer 2021, the Delaware Department of Education funded our virtual professional learning using the Canvas LMS to provide summer school programs to accelerate student literacy learning. We have been lucky to have the support of UDIT during this challenging time.”

Sharon Walpole
 Professor, School of Education
 Director, Professional Development Center for Educators

CANVAS

Canvas Course Sites by College/Program created between January 27, 2020 and June 15, 2021.

Unpublished indicates enrolled students cannot view content in the course.



UD CAPTURE (KALTURA)	FY2019	FY2020	FY2021
VIDEOS PLAYED	151,364	791,115	2,903,602
VIDEOS CREATED/UPLOADED	53,975	77,883	169,441

Poll Everywhere Responders | Presenters

FY2020 >> 4,022 | 65
 FY2021 >> 13,620 | 225



Visits to the Virtual Welcome Bar

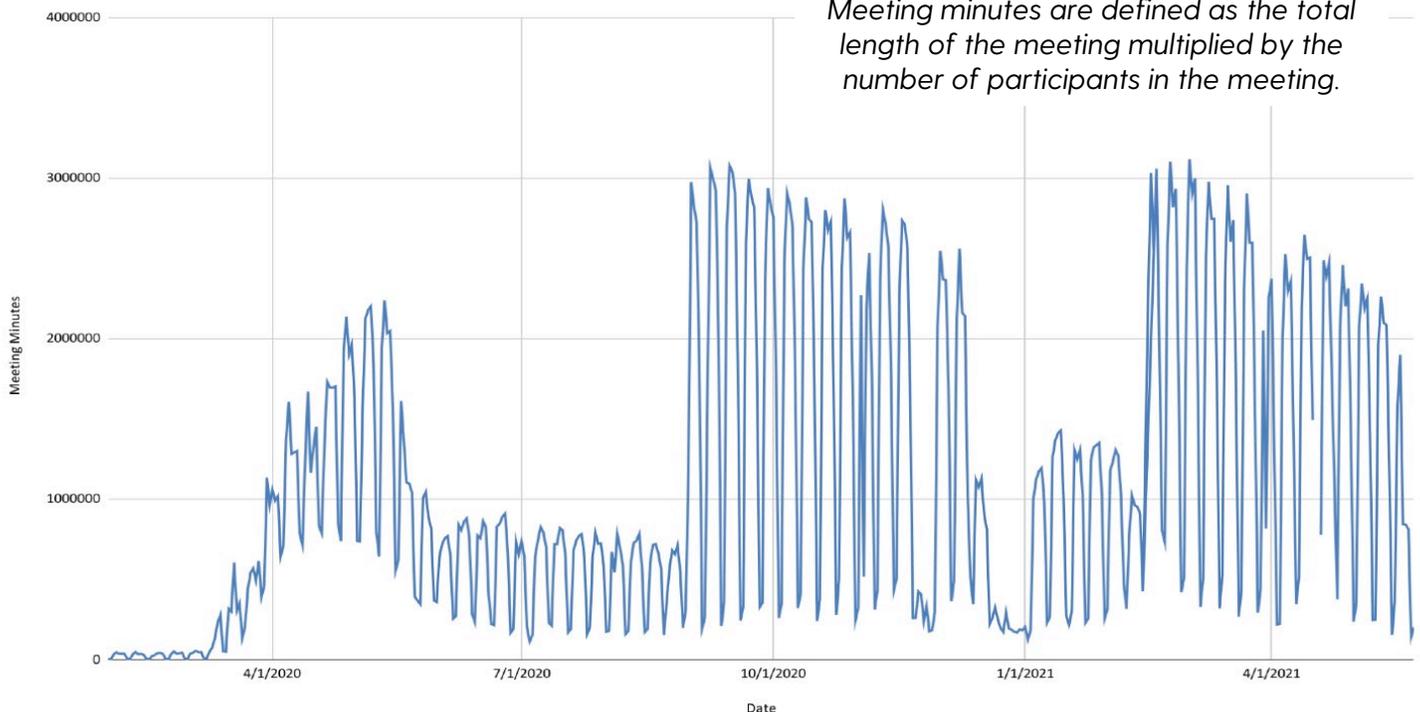
FY2020 >> 450
 FY2021 >> 3,881



2,400
 support calls logged at Virtual Welcome Bar

Canvas courses supported
 FY2020 >> 6,584
 FY2021 >> 11,338

UD COVID19 Zoom Meeting Minutes Feb 1, 2020 through May 23, 2021



ZOOM MEETING MINUTES

Meeting minutes are defined as the total length of the meeting multiplied by the number of participants in the meeting.

In 2018, the IT Steering Committee at the University of Delaware began the process of creating a multi-year strategic plan. The IT plan addresses current challenges and transforms technology to be an asset to research growth, student success, and operational effectiveness. Realization of the plan to date has been a collaborative effort of University and college IT groups working in concert with many campus partners in administrative and academic areas. This portion of the report offers an update on plan strategies and key UDIT achievements in support of the IT Strategic Plan goals.

Through collaborations within and outside the University, UDIT has made tremendous strides in achieving the major activities that comprise the goal strategies articulated in UD's IT Strategic Plan. By the end of FY2019, progress was realized in each of the plan's four goals, with greatest achievements in the areas of optimizing IT services and enabling administrative excellence. For FY2020 and FY2021, UDIT's primary focus and greatest impact targeted the student experience, research and cloud-based capabilities, connectivity and networking, academic technologies, change control, and service management. UDIT continues to keep pace with security challenges and continues to press forward in areas related to enterprise technologies, governance, and learning spaces.

Roadmaps detailing objectives and major activities for each of the plan's four goals continue to guide implementation of UD's IT Strategic Plan and serve as a starting point for sequencing priorities. This coming fiscal year, these maps will be reviewed with consideration given to the significant impact and change resulting from the pandemic and in lieu of strategic planning efforts currently underway at the University (expected to conclude in January 2022).

A summary and select highlights of work completed toward the IT Strategic Plan are captured in the pages that follow, along with feature stories of faculty, staff, and student success.

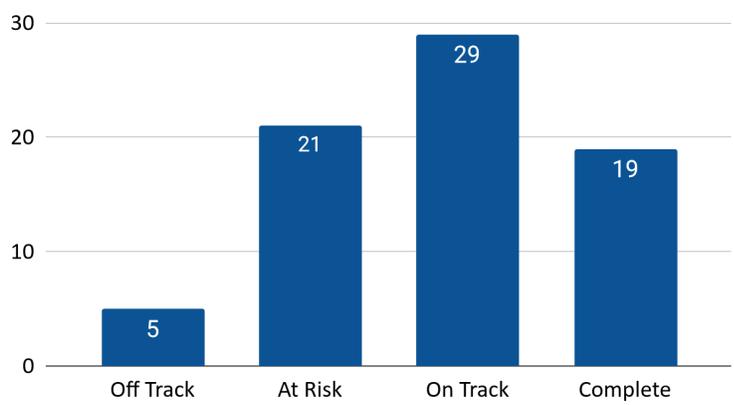
- 4 GOALS** 
- SUPPORT RESEARCH AND SCHOLARSHIP
 - ENABLE ADMINISTRATIVE EXCELLENCE
 - FACILITATE STUDENT LEARNING AND SUCCESS
 - OPTIMIZE IT SERVICES



SPECIAL FEATURES

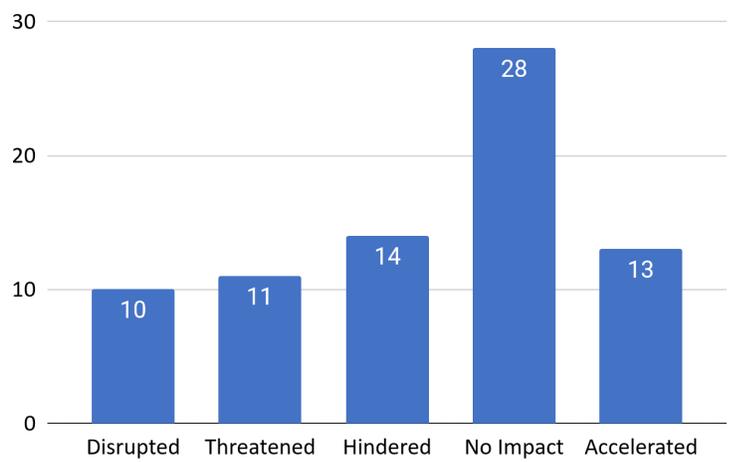
- UD's Department of Art Conservation
- UD's State-of-the-Art Research Capabilities and Role
- TeamDynamix and UD's Institutional Research & Effectiveness
- IT Project Management and Faculty Promotion, Tenure, Appraisal
- UD's Growth in Online Learning, design support of Lerner College
- Wi-Fi, network and security upgrades and innovations

PROGRESS IN ACHIEVEMENT OF GOAL ACTIVITIES (N=76) *



* Indicates % chance of achieving activity in the desired timeframe
 Off Track = <70% chance
 At Risk = ~50% chance
 On Track = >70% chance

COVID-19 IMPACT ON ACHIEVEMENT OF GOAL ACTIVITIES (N=76)



UD'S DEPARTMENT OF ART CONSERVATION GETS A DIGITAL BOOST

—Authored with the enthusiastic assistance of many grateful ARTC faculty

“UD’s [Department of Art Conservation](#) offers education and training in disciplines ranging from the preservation of ancient archeological materials to fragile contemporary art. Our work is hands-on and precise, requiring complex processes nearly impossible to capture via Zoom or other online platforms. We were therefore immensely grateful for the dedication, skill, and great expertise of the UDIT University Media Services whose staff spent many long days filming instructional videos in our conservation laboratories at Winterthur Museum, Garden & Library. They were able to capture stunning details of conservation processes including the cleaning of fragile photographic surfaces using miniscule dampened cotton swabs, hand stitching damaged fabrics with fine silk thread, identifying plastics with microchemical spot tests, the slow (and magical!) process of “vanishing” serious glass breaks with specialty glass adhesive, and assembling ceramic sherds. These videos will continue to be excellent tools to support our teaching efforts into the future.



UDIT’s remarkable service did not stop with laboratory close-ups! Traditionally our ten graduating art conservation Master’s-level students return to Winterthur in mid-August to present talks illustrating exciting treatments carried out during their third-year internships at cultural institutions worldwide. In order to pay careful attention to health and safety mandates, we were able to offer our 2021 final orals event in a hybrid format. The UDIT team offered invaluable on-the-ground expertise as they planned for and filmed more than eight hours of complex and colorful presentations delivered in person in Winterthur’s Copeland Lecture Hall and shown simultaneously as a Zoom Webinar with an international audience. Such hybrid programming had never been possible before. The event was seamless, and the quality of the final video was flawless. We are grateful for UDIT’s creative thinking, positive approach, and partnership.”

Debra Hess Norris

Chair and Professor of Photograph Conservation
 Unidel, Henry Francis DuPont Chair of Fine Arts
 Director, Winterthur/UD Program in Art Conservation



Goal Description: The IT plan will deploy technologies and services to enable UD’s strategies to increase research and scholarly activity, impact, and innovation. UD will deploy a research cyberinfrastructure that facilitates complex, data intensive research. Research networks and partnerships will enable UD researchers to move their computer-intensive projects between on-premises and cloud-based resources. Expanded research computing services and data management expertise will encourage more faculty to apply research technologies to their work and maximize time available to focus on their scholarship. Improved consultative services will enable faculty in all disciplines to leverage IT capabilities, such as high performance computing (HPC) or data visualization, in their scholarship.

GOAL STRATEGIES

	NOW	12 MONTHS	24 MONTHS	36 MONTHS	48+ MONTHS
Upgrade network, form governance, recruit a Research IT leader, devise storage strategy	█				
Facilitate use of cloud, form multi-institutional HPC partnerships		█			
Adopt new funding model, expand application support, create research IT liaisons		█			
Plan future upgrades, further expand application and data expertise			█		

KEY SUPPORTING ACTIVITIES

- Collaborative NSF Campus Cyberinfrastructure grant award
- DARWIN HPC brought online
- Caviness Expansion #2
- Delaware Debates
- Grant writing (MRI, NSF, NIH)
- Webinar coordination, support



DELAWARE DEBATES (OCTOBER 2020)

DELAWARE DEBATES

Every two years, candidates for governor of Delaware and for the state’s single seat in the U.S. House of Representatives answer questions and discuss issues in a forum called the Delaware Debates. Most recently, the debates—impacted by the COVID-19 pandemic—were held as a virtual event hosted by the University of Delaware’s [Center for Political Communication](#) (CPC) and [Delaware Public Media](#). Behind the scenes was UDIT’s University Media Services team, providing support for the live video recording.



AN ELITE SEAT IN THE XSEDE FEDERATION

In January 2019, UD's Information Technologies was accepted as a Level 3 Service Provider member of XSEDE, an NSF-funded virtual organization that integrates and coordinates the sharing of advanced digital services—including supercomputers and high-end visualization and data resources—which form the foundation for a national cyberinfrastructure ecosystem. Through XSEDE, the UD community has access to additional cyberinfrastructure, expertise, and advanced digital resources. In the Summer of 2020, UD elevated its status within the XSEDE Federation to a Level 2 Service Provider member—there are currently only eight such members in the country. Members of the XSEDE Federation agree to interface with XSEDE and offer service and software integration to enhance the productivity of a growing and global community of scholars, researchers, and engineers. Essentially, they help ensure researchers can make the most of the supercomputers and tools available.

XSEDE

Extreme Science and Engineering
Discovery Environment

HIGH DEMAND FOR UD'S COMMUNITY CLUSTERS: CAVINESS AND DARWIN

In October 2018, the premiere HPC community cluster, dubbed Caviness, came online. Designed to expand by one to two cabinets a year for five years, the popular cluster has already received its first and second scheduled expansions and is nearly fully subscribed. The Caviness cluster is modeled after XSEDE clusters, which will help UD researchers expand their work to national resources and better share computer resources. It also contains technology optimized at accelerating emerging domain sciences such as artificial intelligence and machine learning. The DARWIN (Delaware Advanced Research Workforce and Innovation Network) HPC cluster was funded by a National Science Foundation Major Research Instrumentation (MRI) grant awarded to UD's Data Science Institute. The grant provided ~\$1.4M of federal funding to UD to build a Data Science optimized computation resource for the UD community and to Delaware researchers as well. The DARWIN cluster is critical to elevating UD to the XSEDE Level 2 Service Provider and positions UD for future National Science Foundation, National Institute of Health, Department of Education, and United States Department of Agriculture grants, all of which require HPC resources to compete.

CLOUD PLATFORMS FOR SCIENTIFIC AND COMPUTING RESEARCH NEEDS

In December 2018, Internet2 announced a partnership with the National Science Foundation (NSF) to coordinate the use of cloud platforms. With UD's recent upgrade from 10Gigabit to 100Gigabit technology, our researchers are taking advantage of this partnership. The recent cyberinfrastructure upgrade includes the creation of a Science DMZ, installation of a Data Transfer Node (DTN), the installation of high-performance network monitoring infrastructure, and membership in the New York State Education and Research network (NYSERNet). With this upgrade, the University now enjoys 100Gbps connectivity to the Internet, collaborating research institutions, and cloud service providers. Additionally, with NYSERNet acquiring a redundant 100Gbps peering connectivity in Ashburn, Virginia, UD's connection speed to Philadelphia is 200Gbps.

GRANTS RECENTLY FUNDED OR IN REVIEW



- CC* Team: CAREERS: Cyberteam to Advance Research and Education in Eastern Regional Schools
- CyberTraining: Pilot: A Professional Development and Certification Program for Cyberinfrastructure Facilitators
- MRI: Acquisition of a Regional Resource for Long-Term Archiving of Large Scale Research Data Collections
- MRI: Acquisition of a Big Data and HPC System to Catalyze Delaware Research and Education
- CC* Networking Infrastructure: CITADel - 100 Gb/s Connection Upgrade to Internet2
- Collaborative Research: HDR DSC: Delaware and Mid-Atlantic Data Science Corps
- Data Management and Storage System for Shared Resource Facilities
- CC* Integration-Large: Hybrid Auditorium with Wireless Social VR
- CC* Planning: Delaware Research & Education Network
- CC* CRIA: The Eastern Regional Network

*Campus
Cyberinfrastructure

PROGRESS STATUS

Indicates the % chance of achieving the activity in the desired timeframe

- Off Track = <70% chance
- At Risk = ~50% chance
- On Track = >70% chance

PROGRESS & IMPACT ASSESSMENT

The following four strategies are associated with the IT Strategic Plan goal “Support Research and Scholarship.” UDIT leadership reviewed each strategy, assessing progress made on all related activities, and identified whether the pandemic impacted activity achievement (i.e., achieving the activity was not impacted; was positively accelerated; or was negatively hindered, threatened, or disrupted).

GOAL STRATEGY	MAJOR ACTIVITY	PROGRESS STATUS	COVID-19 IMPACT
1. Provide high speed network connectivity from UD research sites to national labs, supercomputing centers and regional and national institutional collaborators.	Complete upgrade of on-campus networks to provide high speed network connectivity, up to 100Gbps connection speeds to research labs.	Complete	No Impact
	Optimize a portion of the campus network for high performance scientific applications (Science DMZ).	At Risk	Threatened
	Increase connection speeds to Internet2.	Complete	No Impact
	Partner with a regional networking group such as NYSERNET to create high speed, 100Gbps research networks between UD and its research partners in the mid-Atlantic and Northeast.	Complete	No Impact

GOAL STRATEGY	MAJOR ACTIVITY	PROGRESS STATUS	COVID-19 IMPACT
2. Leverage improved campus cyberinfrastructure and cloud resources to provide researchers with a continuum of high performance computing and data storage capabilities.	Expand the capacity of the HPC clusters by facilitating partnerships with interested faculty to co-invest in HPC clusters and to transition their research from departmentally based resources into the shared HPC environment.	Complete	Hindered
	Collaborate with the University Library and Research Information Management Task Force to design and implement tiered storage solutions to support information management life-cycle needs.	At Risk	No Impact
	Establish configurations (e.g., containers) in the UD HPC environment that parallel national resources such as XSEDE to facilitate the transfer of research projects between environments.	Complete	No Impact
	Partner with cloud providers including Amazon and Microsoft to develop secure network pathways, pre-negotiated contract terms, and convenient payment vehicles to facilitate using cloud resources as an extension of on-campus resources.	At Risk	No Impact
	Develop advisory services to assist faculty less experienced in leveraging computational resources in their scholarship to assess, plan and implement cloud resources.	Off Track	No Impact

PROGRESS STATUS

Indicates the % chance of achieving the activity in the desired timeframe

- Off Track = <70% chance
- At Risk = ~50% chance
- On Track = >70% chance

PROGRESS & IMPACT ASSESSMENT (CONTINUED)

GOAL STRATEGY	MAJOR ACTIVITY	PROGRESS STATUS	COVID-19 IMPACT
3. Expand research computing support services to maximize the time researchers and graduate students can spend advancing their research and scholarship and to broaden adoption of the research cyberinfrastructure to more faculty and disciplines including the social sciences, humanities and the arts.	Hire a Director of Research Cyberinfrastructure to collaborate with the Data Science Institute, the HPC research community, the Library and other stakeholders to develop UD's research technology services.	Complete	No Impact
	Provide application development support to assist faculty to optimize custom programs and algorithms for campus and cloud-based high performance computing environments.	At Risk	No Impact
	Develop and deliver training programs in multiple modalities (workshops, online) to assist faculty and students to use the cluster and broadly applicable scientific software.	At Risk	Hindered
	Improve communication, create service catalogs and expand outreach to faculty and students to facilitate discovery of UD's full range of research computing infrastructure, data sets, scientific applications and services.	On Track	No Impact
	Expand support services to facilitate use of research cyberinfrastructure in faculty scholarship in social sciences, arts and humanities.	At Risk	Hindered
	Establish research liaisons to each college to promote awareness of research IT capabilities across the University and facilitate access to services.	On Track	No Impact

GOAL STRATEGY	MAJOR ACTIVITY	PROGRESS STATUS	COVID-19 IMPACT
4. Establish funding and governance practices to make research computing services responsive to the needs of the research community, sustainable, and widely utilized.	Establish a faculty led research IT committee to recommend new initiatives, govern the use of shared research computing facilities, and to advocate for the needs of UD researchers.	Off Track	Threatened
	Create a core set of University funded research computing services that provides faculty and students conducting research with access to a foundational level of computing, storage, and research software.	Complete	No Impact
	Assist faculty to develop grant proposals and to secure appropriate funding to utilize campus cyberinfrastructure.	At Risk	No Impact
	Evaluate options to fund the on-going maintenance and upgrade of the research IT infrastructure and select an option that best promotes access and adoption and sustains the level of capability required by faculty and students.	On Track	Hindered

ELEVATING UD'S STATE-OF-ART RESEARCH CAPABILITY AND ROLE

UDIT advances in cyberinfrastructure, digital resources, and partnerships are elevating UD's state-of-art research capability and role. Examples of the game-changing advances are captured in the timeline below and include the University's position as an elite provider of research computing services, forays into cloud services for research computing and storage, and investments in UD physical capital. Recent physical capital investments include the expansions of the [Caviness](#) High Performance Computing (HPC) cluster, the [DARWIN](#) (Delaware Advanced Research Workforce and Innovation Network) HPC, and significant [networking and cyberinfrastructure upgrades](#). Another game-changer comes in the form of UDIT's [Research Cyberinfrastructure](#) group (IT-RCI), a relatively new team of IT experts dedicated to supporting research computing across the institution.

As UD's research computing capability grows, new opportunities to conduct groundbreaking research are being opened to a broader base of UD faculty and staff, and to organizations and institutions in the state of Delaware and beyond. These opportunities not only empower collaborations within the University but have already positioned UD as a key player with organizations like XSEDE, the Extreme Science and Engineering Environment, in support of research computing and with institutions such as Yale and Rutgers in the submission of major research computing grants.



"UDIT has been a great collaborator and enabler of computational and data-enabled science at UD. I experienced this support firsthand in our DARWIN project—bringing a new, National Science Foundation-funded computational resource to UD. Despite formidable obstacles, such as COVID-19 hitting the delivery of the hardware head-on and a staff that is much smaller than at competing institutions, UDIT successfully led the project's high performance computing cluster through installation and early user mode to its current full production status."

Rudolf Eigenmann
Interim Chair, Department of Computer and Information Sciences
Professor, Electrical and Computer Engineering

Recent UDaily articles highlighting UD's faculty and HPCs:



- [Data from the Cosmos](#)
- [Environmental Monitoring](#)
- [Harnessing Artificial Intelligence for the Masses](#)
- ['Hat Trick' of Honors for UD's Jayaraman](#)

MILLS HPC ONLINE

UD's first community cluster featured 200 compute nodes with 5,136 processor cores, over 14 terabytes of RAM, and about 200 terabytes of disk space. Funded jointly by UD researchers from 19 departments and UDIT.

2011

FARBER HPC ONLINE

UD's second community cluster. The University of Delaware's Farber community cluster consists of 190 compute nodes containing 3800 Intel E5 family processor cores and 14TB RAM; a 256TB Lustre filesystem; and an FDR InfiniBand high-speed network.

2014

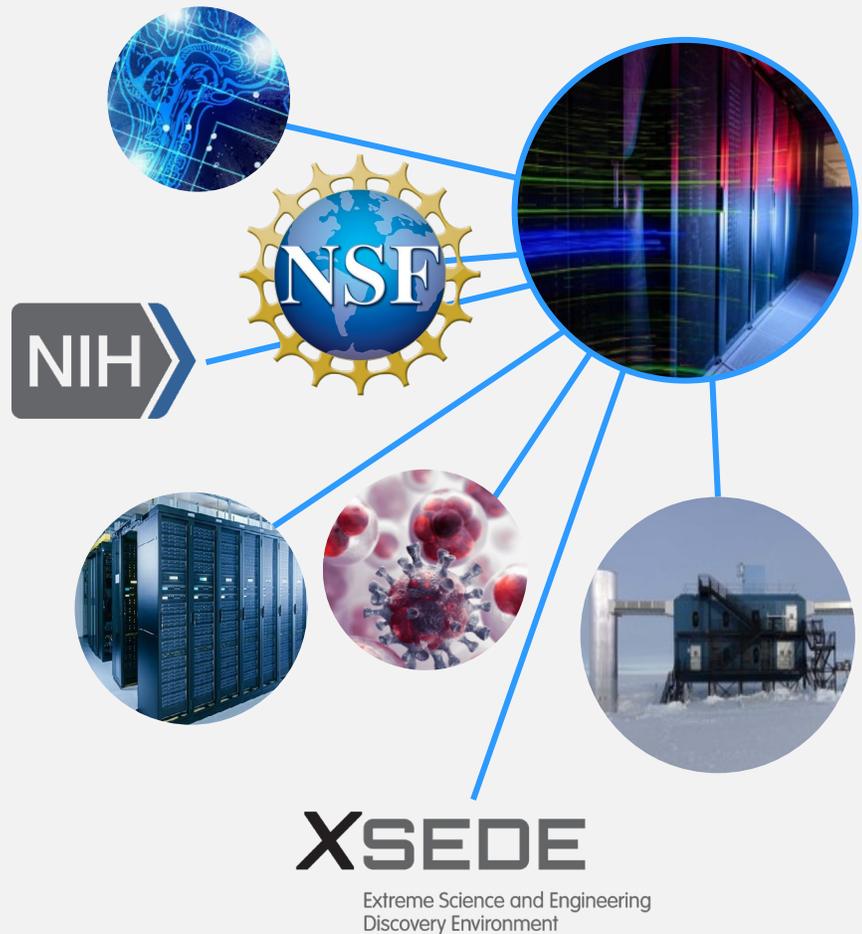
CAVINESS HPC ONLINE

The University of Delaware's Caviness community cluster came online July 2018. The first-generation consisted of 127 compute nodes containing 4536 Intel E5 family processor cores and 25TB RAM; a 200TB Lustre filesystem; and an Omni-path high-speed network. Generation 1 of Caviness two types of node were offered to stakeholders: traditional compute and GPU-enhanced compute nodes. Each type was upgradeable (at purchase) to memory sizes above the baseline 128 GB.

2018

UDIT TEAM SUPPORTS RESEARCH PORTFOLIO AT UD

UDIT's [Research Cyberinfrastructure \(RCI\)](#) group was formed in Spring 2019 and has become the University's one-stop shop for research computing services and support. The team provides the infrastructure, applications, and services required to support UD's growing research portfolio—including UD's High Performance Computing (HPC) clusters. In addition to system and application support, RCI is increasingly serving as a channel of communication between groups within UD and working to develop and encourage partnerships both internal and external to UD that support the strategic goals of the University. The team provides grant writing and in-kind support for large grants and offers a growing portfolio of symposia and workshops related to HPCs, data storage (e.g., Google GSuite's Rclone), Geographic Information Systems (e.g., ArcGIS), and other visualization tools.



→ **RECENT UDIT GRANT SUPPORT**
16 written
8 awarded
2 in review

RCI TEAM, CAVINESS EXPANDS

- UDIT restructures to provide UD researchers a team of experts dedicated to supporting research computing across the institution.
- HPC Community Caviness receives first expansion due to high demand.
- UDIT becomes NYSERNET member, offering greater connectivity to Internet2, collaborating research institutions, cloud services.

INFRASTRUCTURE, SECURITY GAINS

- Funded through an NSF grant, UDIT completes the upgrade to NYSERNET at 100Gbps and begins work to upgrade its campus network, security and infrastructure—providing researchers with 100 Gbps + Science DMZ + Connection to Internet2 + Data Transfer Node (DTN) + network monitoring infrastructure. UDIT also implemented a multi protocol label switch (MPLS) architecture with 100Gbps firewalls that improve UDIT's security posture.
- Caviness receives its second expansion due to continued demand.

DARWIN ONLINE, XSEDE

- The DARWIN (Delaware Advanced Research Workforce and Innovation Network) HPC cluster was funded by a National Science Foundation Major Research Instrumentation (MRI) grant awarded to UD's Data Science Institute. The grant provided ~\$1.4M of federal funding to UD to build a Data Science optimized computation resource for the UD community and to Delaware researchers as well.
- The DARWIN cluster was critical to elevating UD to the XSEDE Level 2 Service Provider and positions UD for future collaborations and grant partnerships.

2019

2020

2021

Goal Description: The IT Strategic Plan sets a roadmap for the core administrative technologies that support student and administrative services and enables operational excellence. By approximately 2027, the University’s major administrative technology, PeopleSoft, will be phased out by its vendor. As this date approaches, the software will become more costly to maintain and fall further behind leading capabilities and practices. This goal sets a roadmap to upgrade PeopleSoft and address acute gaps in other administrative technologies. It prepares the University to move to the next generation of student information (SIS) and enterprise administrative systems (ERP). Strategies create the technological and organizational capacity to streamline processes and enhance user experiences with digital services.

GOAL STRATEGIES

	NOW	12 MONTHS	24 MONTHS	36 MONTHS	48+ MONTHS
Redesign processes, reduce customization	[Progress bar from NOW to 48+ MONTHS]				
Close critical application gaps	[Progress bar from NOW to 12 MONTHS]		[Progress bar from 24 MONTHS to 48+ MONTHS]		
Improve student experience	[Progress bar from NOW to 24 MONTHS]			[Progress bar from 36 MONTHS to 48+ MONTHS]	
Implement new ERP (2023) and SIS (2025)	[Progress bar from NOW to 12 MONTHS]		[Progress bar from 24 MONTHS to 48+ MONTHS]		

KEY SUPPORTING ACTIVITIES

- Business Intelligence Dashboards
- UD Time Rollout (Cloud-based)
- Faculty Appraisal Project
- Faculty Promotion & Tenure
- JAGGAER Cleanup (i.e., grade changes, course changes)
- Online W-2 Forms
- TeamDynamix
- COVID-19 Contact Tracing
- UD Health Check & Dashboard

COLLABORATION IMPROVES FACULTY TENURE, PROMOTION AND APPRAISAL PROCESSES

Teams within UDIT collaborated with the Office of the Provost and Human Resources to create a system to track faculty promotion and tenure requests with workflow to entities including committees, chairs and deans. In a separate but related project, this collaboration extended to enhance the functionality of the Employee Performance Appraisal and Planning Web Form to accommodate faculty appraisals.



"The promotion and tenure process is a highly consequential, stressful event in a faculty member's career, and managing the process well is a major institutional responsibility. When UD decided to develop an in-house platform for P&T review, the stakes were high. I feel fortunate to have had the chance to work with colleagues in UDIT and Human Resources to develop and successfully implement a clean, user-friendly P&T review tool that has been very well received by faculty and is now in its second year of use. And simultaneous with this project, we also developed a new online system for conducting the Faculty Annual Appraisal and Planning Process. In both instances, a can-do, collaborative spirit was shared among all the partners and the careful oversight and management of the projects by UDIT resulted in successful outcomes."

Matt Kinservik
Vice Provost for Faculty Affairs and professor of English

COVID-19 SPURS UDIT PILOT OF “HOW UD WORKS”

Throughout the pandemic, UDIT employees have been working in a sustained and emergency response. Many, if not most, worked as remote employees with limited on-campus work allowances. With consideration toward faculty, staff, and student needs—as well as the continued pandemic climate—UDIT leadership began working in February 2021 to identify key considerations, work modes, challenges, and opportunities relevant to developing a viable and beneficial return-to-work framework for UDIT and UD that lies between “on-premise” and “fully remote” work modalities.

At the time of writing, UDIT is preparing to pilot the new return-to-work framework for its workforce. This framework affords UDIT the opportunity to define a new UD Workforce that is customizable within divisions—unit by unit, employee by employee—with consideration given to position requirements and employee needs and values. It also offers opportunity to provide greater effective management and use of available spaces while judiciously investing in key technologies and infrastructure that offer modernization and support to UD workforce, cost savings to the University, and protection of institutional assets.

The implementation of the framework will be phased and is expected to evolve as our team re-imagines our work experience and culture. The four phases are below.

- **Phase 1: Implementation Planning (through August 2021).** Status quo on-site with planning for full student population and on-site staffing necessary to support them on campus.
- **Phase 2: Pilot/Experimentation Program Period (September 2021–December 2021).** Increase on-site work and experiment with flexible work options. Test out mix of campus and remote work, staggered staffing methods, flexible arrangements, etc.
- **Phase 3: Refine Work Arrangements (January 2022–June 2022).** Plan for more typical operations, less restrictions on access to campus, refine working arrangements to optimize productivity and engagement.
- **Phase 4: Final Implementation (July 2022).** Finalize UDIT procedures associated with the University of Delaware’s redefined Flexible Work Policy.

UDIT FAST-TRACKS COVID-19 PROJECTS

UDIT worked quickly to implement critical projects needed to enable institutional continuity during COVID-19. Much of this work benefitted the IT Strategic Plan and forwarded strategies tied to operational efficiencies. Here are just a few of those projects completed FY2020 and FY2021.

- AD Instruments
- Livestream capability to Loudis Recital Hall
- Add-in for O365: Excel Risk Solver Platform
- COVID-19: Testing Annex
- COVID-19: Contact Tracing
- COVID-19: LIMS System Implementation & VADDS Server Move
- COVID-19: Symptom Checker
- COVID-19 Fall class schedule
- COVID-19 Response for Term 2021/2022
- COVID-19 Testing Phase II
- COVID-19 Vaccine Card Upload
- COVID-19 Vaccine Tracking

QUALTRICS GENERATED COVID-19 DASHBOARD AND HEALTH CHECK (OCTOBER 2021)

UD is sharing information on this site about the status of campus activity this fall and COVID-19 positive cases among members of the campus community to aid in informing our community about public health.

VACCINATION RATES

91% students are fully vaccinated	87% employees are fully vaccinated	91% employees on campus in the last 7 days are fully vaccinated
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- Dining: People Counting, Occupancy Monitoring
- Dining: Grub Hub Add to Trabant for Fall 2020
- How UD Works
- Kaplan I-Human Vsims
- MarchingOrder
- Microsoft Intune
- Microsoft Remote Labs Connector
- MTM - Cisco/Intelepeer
- Graduation Recording Solution
- Renewal of 200 VMware Horizon and NSX licenses
- Spouse Card Requests
- StageClip
- Take Out for Vita Nova

PROGRESS STATUS

Indicates the % chance of achieving the activity in the desired timeframe

- Off Track = <70% chance
- At Risk = ~50% chance
- On Track = >70% chance

PROGRESS & IMPACT ASSESSMENT

The following five strategies are associated with the IT Strategic Plan goal “Enable Administrative Excellence.” UDIT leadership reviewed each strategy, assessing progress made on all related activities, and identified whether the pandemic impacted activity achievement (i.e., achieving the activity was not impacted; was positively accelerated; or was negatively hindered, threatened, or disrupted).

GOAL STRATEGY	MAJOR ACTIVITY	PROGRESS STATUS	COVID-19 IMPACT
1. Improve the student experience and lay the groundwork for the next generation student information systems.	Expand the student services available through mobile applications or web sites.	On Track	Hindered
	Devise a student support and CRM technology strategy to better understand student interests, track their engagement, and tailor outreach efforts throughout the student life-cycle.	Off Track	Threatened
	Improve information sharing between disparate applications that track student interest and engagement	At Risk	No Impact
	Implement shared solutions for document management, optical character recognition, and chat bots across student service areas.	At Risk	No Impact
	Develop strategies to leverage mobile devices or campus card to improve methods to access services and record student engagement.	On Track	Accelerated

GOAL STRATEGY	MAJOR ACTIVITY	PROGRESS STATUS	COVID-19 IMPACT
2. Close critical capability gaps and extend the life of the current Peoplesoft software implementation.	Strengthen foundational capabilities that support all administrative services by implementing solutions for identity and access management, business intelligence and reporting, and mobile application development.	On Track	Disrupted
	Support improved efficiency and effective compliance by implementing an electronic research administration system.	At Risk	Disrupted
	Enable more efficient online processes in finance and human resources by deploying a staff recruiting application and evaluating the cost/benefit of implementing targeted technologies to support employee relations and online commerce (e-procurement) solutions as bridges to the next generation ERP solution.	Complete	Hindered

GOAL STRATEGY	MAJOR ACTIVITY	PROGRESS STATUS	COVID-19 IMPACT
3. Deploy business intelligence capabilities to improve transactional reporting and enable advanced analytics.	Support the work of the Office of Institutional Research and Effectiveness and the data governance to improve data management and use.	On Track	Hindered
	Provide improved tools to facilitate ad-hoc transactional reporting.	On Track	Accelerated
	Deploy HelioCampus as a BI platform for advanced analytics.	Complete	No Impact
	Create a data strategy to improve the integration of data among existing and future transactional systems and the BI platform.	At Risk	Hindered

PROGRESS STATUS

Indicates the % chance of achieving the activity in the desired timeframe

- Off Track = <70% chance
- At Risk = ~50% chance
- On Track = >70% chance

PROGRESS & IMPACT ASSESSMENT (CONTINUED)

GOAL STRATEGY	MAJOR ACTIVITY	PROGRESS STATUS	COVID-19 IMPACT
4. Replace the ERP by 2023 and the student information system by 2025.	Prepare for implementation of modern, highly configurable, software as a service solution by developing additional business analyst capabilities and streamlining processes.	On Track	Hindered
	Continue to monitor the maturation of new software solutions to confirm the timing of the replacement strategy and to determine if it's advantageous to select the same solution for both ERP and student systems (SIS).	Complete	No Impact
	Develop a long-range financial plan to fund one-time and recurring investments and reallocate any off-setting savings to transition to the new ERP and SIS.	On Track	Hindered
	Define requirements and undertake a structured selection of the new ERP in 2020 and for the SIS in 2021.	At Risk	Hindered
	Charge administrative and student systems sub-committees within the new IT governance structure to monitor the long-term replacement roadmap and to evaluate major investments in applications that could potentially overlap with, or detract from, the long-term replacement strategy.	At Risk	Hindered

GOAL STRATEGY	MAJOR ACTIVITY	PROGRESS STATUS	COVID-19 IMPACT
5. Support the redesign of business processes, invest in new technology systems that support improved business processes, and reduce the complexity of the current application portfolio.	Select processes for redesign based on organizational assessments and results of cost/benefit analyses completed that considers overall timing of ERP replacement.	On Track	Threatened
	Develop additional business analyst capabilities and competencies in UD IT and other administrative units.	At Risk	Disrupted
	Simplify or retire complex Peoplesoft customizations that can be replaced with vendor-maintained functionality (e.g., asset management, tracking individuals with multiple jobs, leave tracking).	On Track	No Impact
	Deploy a document management and workflow solution to support paperless processes and more effective document retention strategies.	Off Track	Disrupted
	Redesign human resources and finance business processes and adopt PeopleSoft delivered capabilities to reduce reliance on UD Web Forms and Applications.	At Risk	Threatened
	Invest in an easy-to-use promotion and tenure capability.	Complete	No Impact
	Streamline effort certification and proposal submission associated with sponsored research.	Off Track	Disrupted

TEAMDYNAMIX (TDX) GAINS TRACTION, PROVIDES COVID-19 RESPONSE SUPPORT

In fiscal year 2019, UDIT acquired TDX to replace the desktop application used by IT and other groups. The goal was to provide an enterprise application that would offer a consistent user experience for requesting or reporting problems. Since acquiring the Software as a Service (SaaS) Cloud Solution, UDIT has employed its single-platform Service Management and Project Portfolio Management capabilities, benefiting from the application's ability to provide support for the management of incidents, requests, problems, changes and assets, and combined project management.

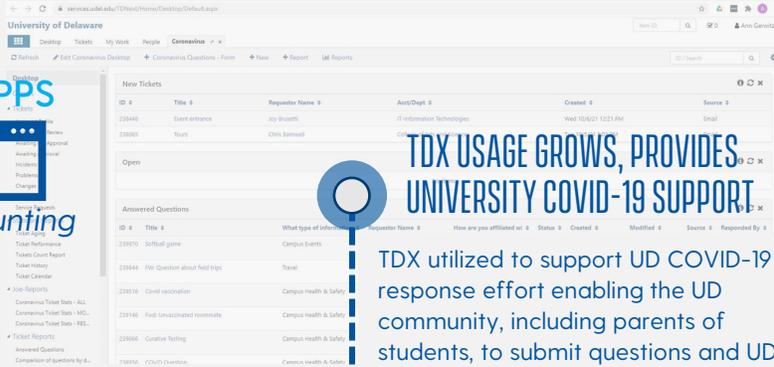
Since its acquisition, a growing number of departments and groups are finding it to be a valuable resource for streamlining daily operations and providing easy and effective efficiencies that offer visibility, accessibility, and centralized support. During COVID-19, TDX served as the backbone of an early and continued communication effort that allows the Blue Hen community to ask and receive answers to pandemic and continuity related questions. Captured in the timeline below, TDX as a complete work management solution, continues to be embraced across the institution.

TeamDynamix

TICKETING APP PARTICIPANTS

College of Arts and Sciences—Communications Group, Office of Communications & Marketing (OCM)—Coronavirus, Institutional Research & Effectiveness (IRE), Student Financial Services, Risk Management, UDIT Network and Infrastructure Services, UDIT/IT Pros, Human Resources (HR), HR-Leave Management, HR-CBC, Registrar, Procurement, Public Safety, UD Online

TDX APPS
15 and counting



TDX USAGE GROWS, PROVIDES UNIVERSITY COVID-19 SUPPORT

TDX utilized to support UD COVID-19 response effort enabling the UD community, including parents of students, to submit questions and UD designees to receive, respond and report on questions from a single platform

IRE becomes an early adopter of TDX ticketing capability

Procurement, Student Financials, Registrar, Human Resources and UD Online transition to TDX

Rolling adoption of TDX by IT Pros allowing visibility by all IT groups, support by IT's Support Center for simple tickets and enabling IT Pro groups to focus on more technical requests

CONTINUED ADOPTION, SUPPORT

TDX continues to support COVID-19 communication efforts for Blue Hen community

The College of Arts and Sciences (CAS) Communications group adopts TDX to better receive, manage and report on requests for their services.

Other groups within CAS have begun transitioning to TDX based on the Communications group's experience

Environmental Health and Safety inquires about TDX use and explores TDX form capabilities

UDIT and FREAS launch a project to review TDX capabilities for streamlining their request processes

TDX ADOPTION & TESTING

UDIT's PMO, Client Support and Services, and IT Communications groups adopt TDX Project Management, Ticketing and Knowledge Management capabilities

UDIT retires Footprints, transitions to TeamDynamix

UDIT begins demonstrations of TDX to interested parties

2019

2020

2021

→ TDX provides the flexibility to present services, articles, and custom forms that can be tied to specific applications, enabling multiple groups to use the same platform to interact with their specific customers.

Technology requests submitted in TDX since 10/2020 **544**



354 projects submitted in TDX since 07/2019



579 PUBLISHED KNOWLEDGE ARTICLES



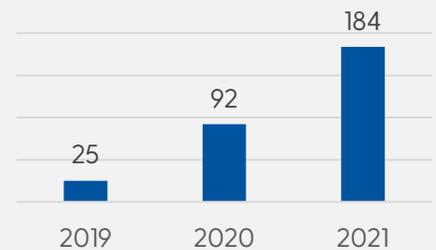
INSTITUTIONAL RESEARCH & EFFECTIVENESS DAILY OPERATIONS BENEFIT FROM TDX

Institutional Research and Effectiveness (IRE)'s Data Engineering worked closely with UD's Information Technologies organization to develop TeamDynamix (TDX) service request forms in support of the university central analytic platform. UDIT's Project Management Office (IT-PMO) and IT Service Management groups developed complex work flows in support of the platform's Access Service Request form, looping in data steward approval when needed. IT-PMO also coordinated efforts with UDIT's Enterprise Systems and Cloud Services (ESCS) and IRE's integration vendor, HelioCampus, for automating account provisioning and permissions maintenance. The other service request forms set up by IT-PMO became a critical component of IRE's day to day business process, allowing requests for data and reporting to be properly triaged, assigned and worked in an efficient manner.

While the ticketing apps provided an essential link for university clients to IRE's data and reporting, it quickly became apparent that the department's internal processes needed something more robust. TDX Projects and Workspaces filled that void. Through a combination of projects, waterfall plans and card walls, IRE is now able to coordinate efforts across multiple teams: Data Engineering, Data Science, ETL/DBA, Institutional Research and its campus partners. All this facilitates responsible development of data structures and reporting in support of the mission of the UD Central Analytic Platform:

- Provide decision support for strategic University decisions
- Increase transparency in reporting and analytics
- Eliminate unnecessary barriers in using data
- Promote consistency in data, business process and reporting
- Foster collaboration across the university

NUMBER OF SERVICES CREATED IN TDX



“TeamDynamix has facilitated IRE’s managing of the implementation of an institutional central analytics platform. This platform requires the oversight of new projects, documentation of older projects, the management of human capital (resources) with data extracts (milestones). While IRE is still working through the implementation of the platform, TDX gives a central and transparent place to document processes and plan for large annual projects.”

Richard J. Reeves
Associate Vice President
Institutional Research and Effectiveness

Goal Description: In conjunction with campus partners, the IT plan improves physical and virtual learning spaces and provides faculty with support to adopt digital learning technologies that are broader and more multi-disciplinary. It lays the technology and services foundation to support the academic strategy for online learning. Extended outreach will help more faculty and students discover digital learning capabilities. Innovation incubation programs will help early adopters evaluate emerging technologies and deploy new pedagogies. Integrated facilities and technology planning will improve baseline classroom capabilities and reflect innovations in learning space technologies in the campus master plan.

GOAL STRATEGIES

	NOW	12 MONTHS	24 MONTHS	36 MONTHS
Assess space condition, Establish Governance	█			
Address deficient spaces, create an integrated room planning process		█		
Develop long-range learning space master plan with coll. spaces, active learning rooms		█		
Create more specialized spaces and an innovation seed fund			█	

KEY SUPPORTING ACTIVITIES

- Courtyard Renovation
- Access and security for UD residence halls
- Esports partnership
- Course continuity workshops
- Virtual Welcome Bar
- Improved Course Continuity website
- Canvas course creation automation
- New Canvas course process
- Laptop loaner program
- Tech at UD website
- eduroam Wi-Fi statewide rollout
- Virtual New Student Orientation



UDIT PRIORITIZES ACADEMIC SUCCESS AND CONTINUITY

UD and UDIT invested heavily these past two fiscal years to ensure academic success and continuity for faculty and students prior to and during the pandemic. Noted in other places in this report, key investments were made in online course and program design, development and delivery; acquisition and provisioning of tools and resources related to assessment, testing, polling and proctoring; learning space coordination and support; scaled Software as a Service (SaaS) solution; increased Zoom licensing and support; and new and expanded online teaching and learning resources for both faculty and students. Here are just a few of the investments that promote academic success and continuity.

For Faculty

- Teaching Online website
- New Virtual Welcome Bar
- New Faculty Support Process (TDX)
- Expanded workshop and training
- Dedicated instructional design support
- Expanded support for teaching international students

For Students

- Tech at UD website
- OneCard moved online
- Expanded 24/7 IT Support Center service
- Expanded technology support for international students
- Support for Virtual New Student Orientation
- Student Laptop Loaner Program

INNOVATIVE MOVE OFFERS DRIVE-UP/WALK-UP ACCESS TO WI-FI

When the University pivoted online spring 2020, UDIT made a commitment to find a way of providing pervasive Wi-Fi connectivity throughout Delaware’s communities to ensure UD students had the online access required to excel in their courses. This commitment resulted in an innovative partnership between the University of Delaware, the State of Delaware Division of Libraries, and K-12 schools districts in Delaware to offer eduroam Wi-Fi or public Wi-Fi free of charge during the COVID-19 pandemic. eduroam Wi-Fi provides higher education students with a free, seamless and more secure way to connect to the internet and complete their online coursework. This access was particularly important for students who live in rural areas where broadband access is limited or who have inadequate or no access at home. Locations where students—as well as staff or faculty—could connect to the internet was [mapped in real-time](#). Nearly 70 locations across Delaware were provided with between 4,500 and 6,000 devices and approximately 1,700 UD clients connecting monthly.



RANDY REYNOLDS, UD ALUMNUS, TESTS WI-FI WITH DAUGHTER AND CURRENT UD STUDENT, LINDSEY, AT CAPE HENLOPEN SCHOOL DISTRICT (MARCH 2020)

EDUROAM USAGE DATA (JUNE 2021)

Location	count
University of Delaware	5917
Cabrini College	17
University of Maryland-College Park	16
College of William and Mary	15
York College of Pennsylvania	13
Virginia Polytechnic Institute and State University	10
Princeton University	10
Clemson University	10
University of Virginia-Main Campus	7
Franklin and Marshall College	6
University of North Carolina at Chapel Hill	5
Tulane University of Louisiana	5
Indiana University	5
College of Charleston	5
University of Wisconsin-Madison	4
University of Minnesota-Twin Cities	4
University of Massachusetts Amherst	4
Haverford College	4
University of Kentucky	3
The University of Alabama	3
Old Dominion University	3
East Carolina University	3
Cornell University	3
SUNY at Binghamton	3
University of Pennsylvania	2

HELPING CREATE AN ESPORTS EDGE

UDIT partnered in the vision and creation of a state-of-the-art Esports Arena housed in the Perkins Student Center. Highly anticipated, the initiative created a space for casual gamers and UD’s varsity gaming teams to enjoy. In support of the initiative, UDIT staff provided advisory oversight, managed the purchase of computers, and ensured a low latency network that will allow the teams to be as effective as they can be. The arena not only offers a stage for the teams to compete but complements UD’s Bachelor of Arts in Game Studies and Esports. The coronavirus pandemic had little effect on the competition, camaraderie, or success at the national level.



PROGRESS STATUS

Indicates the % chance of achieving the activity in the desired timeframe

- Off Track = <70% chance
- At Risk = ~50% chance
- On Track = >70% chance

PROGRESS & IMPACT ASSESSMENT

The following four strategies are associated with the IT Strategic Plan goal “Facilitate Student Learning and Success.” UDIT leadership reviewed each strategy, assessing progress made on all related activities, and identified whether the pandemic impacted activity achievement (i.e., achieving the activity was not impacted; was positively accelerated; or was negatively hindered, threatened, or disrupted).

GOAL STRATEGY	MAJOR ACTIVITY	PROGRESS STATUS	COVID-19 IMPACT
1. Build on the strong foundation of the Faculty Commons to create multi-expertise capabilities that enable sustained faculty engagement with comprehensive program and course development, instructional design and technology support services.	Establish an effective entry point to connect faculty quickly to expanded digital learning support services and expertise including, assessment of services, course design and program development, researching new instructional technologies, project management, and market research.	Complete	Accelerated
	Establish a flexible staffing model with contributed expertise from multiple organizations including the Library, CTAL, UDIT, and Institutional Research and Effectiveness.	On Track	No Impact
	Create experimental spaces, innovation grants, and research and development support as a proving ground for faculty to pilot new pedagogy and technologies and become a pipeline for changes to learning spaces campus-wide.	On Track	Accelerated
	Establish a multi-faceted communication program to share information about teaching with technology and promote engagement with groups. Elements of the program could include a web site, video presentations (e.g., Ted talks), faculty ambassadors, and events.	On Track	Accelerated

GOAL STRATEGY	MAJOR ACTIVITY	PROGRESS STATUS	COVID-19 IMPACT
2. Support the University’s online learning strategy with expanded course design and development services.	Create additional instructional design capacity to assist faculty to design and develop online courses and reduce reliance on third-party partners.	Complete	Accelerated
	Partner with faculty to select and implement a quality rubric for online courses.	On Track	Accelerated
	Develop a strategy to provide 24x7 access to support services for online learners and instructors.	Complete	Accelerated
	Work collaboratively with the Office of the Provost to focus online course development resources on programs and courses selected by the faculty to be redesigned to improve learning outcomes, alleviate enrollment bottlenecks that impede time to graduation, or reduce students’ costs for curricular materials.	On Track	Accelerated

PROGRESS STATUS

Indicates the % chance of achieving the activity in the desired timeframe

- Off Track = <70% chance
- At Risk = ~50% chance
- On Track = >70% chance

PROGRESS & IMPACT ASSESSMENT (CONTINUED)

GOAL STRATEGY	MAJOR ACTIVITY	PROGRESS STATUS	COVID-19 IMPACT
3. Devise a learning space master plan that promotes flexible room designs, supports varied pedagogies, and improves foundational capabilities important to the learning experience, and usability of all spaces.	Implement a consistent method to evaluate the condition and capabilities of all UD learning spaces (Registrar and College controlled) such as the EDUCAUSE Learning Space Rating System. Use the space condition inventory to establish the need and priority for investment in room maintenance and upgrades.	On Track	No Impact
	In partnership with FREAS and the Registrar, establish an integrated process to plan and fund the renovation of the physical, technological, media, and furnishings in classrooms and collaboration spaces.	At Risk	Hindered
	Invest in foundational capabilities including writing surfaces, access to power, sound quality and video display in classrooms and student collaboration spaces.	On Track	No Impact
	Form a learning space governance committee of faculty, students and staff to recommend learning space standards, sponsor assessments of quality and satisfaction, and evaluate emerging needs.	At Risk	Hindered

GOAL STRATEGY	MAJOR ACTIVITY	PROGRESS STATUS	COVID-19 IMPACT
4. Create innovative spaces to leverage digital technologies in concert with the campus master plan.	Create more physical spaces for collaborations supported with robust wireless networks, display screens, and online applications and content.	On Track	Accelerated
	Design additional spaces to support problem-based learning and facilitate students and instructors participating in-person and online.	On Track	Accelerated
	Anticipate more students and faculty bringing their own computing devices to campus with enhanced access to virtual software and decrease reliance on dedicated spaces for general purpose computer labs and classrooms.	At Risk	Accelerated
	Support Colleges to incorporate standards and innovations into the design of specialized learning spaces that can be evaluated for potential migration to all spaces (and ensure available services).	On Track	Accelerated

Pre-COVID-19, UD was capably producing a limited number of high-quality online programs and courses. Focused efforts in several online graduate programs resulted in national recognition and increased rankings in respected publications. The COVID-19 crisis in Spring 2020 placed a direct spotlight on the power of UD’s current online tools and service infrastructure for faculty and students. UD’s ability to provide remote instruction for nearly every spring course stemmed from years of gradual progress: standardization of tools, expanded instructional design services, emphasis on accessibility, and the availability of high-level faculty support. The heightened focus also illuminated the gaps that needed to be filled for UD to carry online and hybrid learning into Fall 2020 and, as necessary, beyond.

COVID-19 ACCELERATES UDIT’S SUPPORT OF ONLINE AND HYBRID LEARNING

In the past, support for online teaching was focused on fully online programs. UD, in conjunction with outside online program management services, developed a limited number of online programs through a high level of course development. These programs were targeted to specific markets and many developed high national rankings. Although many faculty used Canvas to create online companions for their courses, the actual class sessions were typically face-to-face. Though unpredicted, COVID-19 catalyzed online education at UD and UD responded by engaging faculty faced with remote teaching. During the pandemic, the support teams responsible for online programs pivoted to deliver an immediate transition to remote teaching of all courses, which were largely viewed as a success for the University.

This year, the COVID-19 pandemic proved that UDIT had implemented a solid foundational infrastructure in three essential areas: learning management system (Canvas), video cloud platform (Kaltura), and video conferencing (Zoom). In the years prior to the pandemic, UDIT licensed each of these for campus-wide use, integrated them with University systems and campus processes, and started to develop expertise among faculty and staff. The pandemic placed unprecedented demands on these systems and the staff supporting them. The University responded by expanding its investments to improve the online learning experience in areas of technologies, service and support—including adding staff in key areas of instructional design, digital media, and IT Support Center.

DLEO WORKSHOPS MAY 2020-JANUARY 2021



ONLINE FOCUS GROWS

- UD Online Learning Work Group established as subcommittee of Faculty Commons partners
- Online programs developed in limited numbers. (ID team formed, faculty development began, national ranking achieved, vendor dependencies reduced)
- Processes improved (e.g., tools integrated with UD systems, universal course provisioning started for Canvas, Accessibility Initiative)

UDIT’S ROLE INCREASES

- Faculty Commons partnership leveraged to form the Teaching Online Subcommittee of Academic Affairs Fall Planning Committee
- UDIT supports design, development of 9 online programs comprised of 140 online courses

PARTNERSHIP FORMS

Faculty Commons partnership created (CTAL, PCS, Library, UDIT and other units across campus)

2015

2018

2019

UDIT placed substantial emphasis on lifting UD’s practices for student success through workshops, websites, and staff consultations. Workshops were immediately available in support of best teaching practices for each technology platform. A website highlighting online communication and engagement strategies for course continuity was an immediate component of the University’s shift to online courses. This website was followed by a [teaching online compendium](#) offering details about every aspect of online course design and delivery. A [Tech at UD](#) website was quickly created to address specific needs of students learning from outside the classroom. Staff consultations provided instructors with individualized support to make the necessary adjustments to their courses.

Looking forward, UDIT is poised to further build upon strengths while expanding opportunities for quality innovation, partnerships, instructional design, and new teaching models such as the hyflex classroom. The hyflex classroom teaching model presents a new opportunity to extend the concept of the classroom. Innovation will happen around this new definition of classroom where the classroom presence is complemented by those participating, discussing, debating, presenting, and learning from remote locations. Early pilots will be conducted to inform the University about the needs and expectations for this format and how to develop it to maintain the robustness and rigor of traditional classrooms.



“In 2020-21, Lerner, with the help of UD’s Information Technologies, reviewed, evaluated and transformed 27 online undergraduate courses into top quality offerings. Thanks to a tremendous work effort by UDIT staff and Lerner faculty, these courses now feature a custom template, well-designed home pages, and organized learning modules. Our Top-30 ranked Online MBA provided a roadmap for excellence in instructional design that now sets the standard for all online courses in Lerner.”

Bruce Weber
Dean, Lerner College
Professor, Business Administration

COVID-19 ACCELERATES ONLINE SERVICES, SUPPORT, TOOLS

- Launched and supported teach-from-home, learn-from-home, work-from-home modalities
- Expanded levels of support: Virtual Welcome Bar, workshops, web resources, faculty models, Canvas templates
- Core platforms enhanced with continually expand feature sets for instructors
- Complementary tools added for emerging needs (online testing, lab simulation, online student response system)
- Instructional design services universally available and funded as a core resource

- Tech at UD site launched for students
- Continuity of service model for non-academic units
- UDIT a key player in Teaching Online Subcommittee of Academic Affairs Fall Planning Committee
- Strategic instructional support staff placements made among ATS, CTAL, PCS, Library
- Student life launched Canvas version of NSO; UDIT developed Canvas site
- Faculty Commons partners provide special Online Bulletin publications over summer

REIMAGINING THE FUTURE

- Faculty Commons online coordination innovated
- UD support of online programs expanded
- 26 online programs (varied in OPM support); 17 offered ID leads by UDIT
- UDIT to explore new approaches to instruction supported by new levels of technology and support
- Classroom improvements developed (UD Capture+Zoom pilot)
- UDIT continues to build on instructional skills and expertise achieved during the pandemic

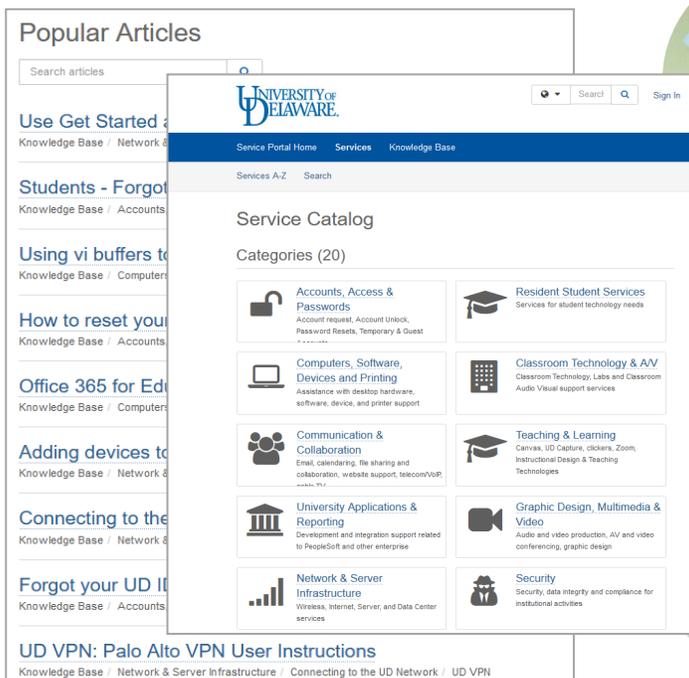
Goal Description: To further operational excellence, the IT plan also introduces mechanisms to improve existing IT services and creates a framework to better organize responsibility for services among IT organizations. Strategies to optimize IT services create efficiencies, provide a more consistent service experience for faculty and students, and reduce information security risks. Most importantly, this goal creates transparent mechanisms to govern services to promote accountability and establish trust in University-wide IT services.

GOAL STRATEGIES

	NOW	12 MONTHS	24 MONTHS	36 MONTHS	48+ MONTHS
Adopt Services Framework and Governance	[Progress bar from NOW to 24 MONTHS]				
Phase 1 Core Services – wireless, document management, security, accessibility	[Progress bar from NOW to 24 MONTHS]				
IT Service Management – catalog ticketing system; Phase 2 Core Services	[Progress bar from NOW to 24 MONTHS]				
IT professional development plans, career paths, improved recruiting	[Progress bar from NOW to 36 MONTHS]				

KEY SUPPORTING ACTIVITIES

- Service and project management
- Change control
- Unplanned/planned outages communications
- IT Governance launch
- Strengthened wireless and cyberinfrastructure
- ERP Transition Effort launch
- Broadcast/CATV System Oversight
- Footprints retired, Migration to TDX
- Network upgrade and migration to MPLS
- Bob Carpenter Center Renovation
- Upgraded firewalls and implemented border firewall protections
- COVID-19: LIMS System Implementation & VADDS Server Move
- 100Gbps Optical Ring to Philadelphia
- Pearson Renovation
- Whitney Athletic Center Network & Wi- Fi



UD SERVICE CATALOG (OCTOBER 2021)

ROBUST INFRASTRUCTURE AND SECURITY ENABLES CONTINUITY & LOOKS AHEAD TO FUTURE

With approximately 4,700 employees and 23,600 students working and learning across Newark, Wilmington, Dover, Georgetown and Lewes locations, UD's robust network, cyberinfrastructure, and related information security are integral to UD's success in—and UDIT's support of—business, research, and academic continuity and growth. UDIT upgraded and modernized the campus network and security architecture starting in the Summer of 2020 and concluding in the Fall of 2021. These changes upgraded campus-wide connectivity to 40Gbps and 100Gbps capacities, providing unfettered access to UD and global research and education (R&E) resources. The inclusion of multi protocol label switch (MPLS) architecture with 100Gbps firewalls improved UDIT's security posture while eliminating campus bandwidth bottlenecks. UDIT also improved campus fiber connectivity and established network redundancy to all hub sites across campus. Implementing an MPLS architecture had the secondary benefit of virtualizing routers, allowing UDIT to halve the number of core routers previously required and reduce annual maintenance and ongoing lifecycle costs. The new network and firewalls position the University for the ever-growing number of connected devices known as the Internet of things (IoT) and the associated security complexity with their integration to the cloud.



PROJECT MANAGEMENT OFFICE CONTINUES TO PLAY STRONG ROLE IN OPTIMIZING IT SERVICES

With oversight for over 450 IT-related projects in the last 24 months, UDIT's [Project Management Office](#) (IT-PMO) has grown into a critical partner across the University. One relatively unheralded win brought to the table by the IT-PMO is the team's coordinated use of continual process improvement and TeamDynamix (TDX). The combined approach in support of the project management process resulted in increased awareness of UD's technology needs. This greater awareness carries positive impact and operational efficiencies across the University, such as:

- Increased ability to maintain UD's cybersecurity posture
- Increased ability to maintain compliance with Federal Accessibility requirements
- Increased collaboration between Procurement, UDIT and the Office of the General Council to process technology requests
- Increased understanding of business needs, requirements for technology from an Enterprise Architecture Service Management perspective
- Earlier engagement of all resources that may be impacted by requests
- Awareness of similar needs, procurements that might be bundled for better pricing terms and conditions



"UDIT's Project Management Office has been fortunate to actively participate in the progressive change between UDIT and our partners on campus over the last three years. In my experience, change in any organization takes time but the openness and willingness of UDIT and the community has created an understanding and collaboration resulting in strong and mutually beneficial partnerships. These partnerships have enabled efficiencies ranging from triaging Technology Requests and successful implementations of enterprise solutions to meeting the urgent demands of a pandemic and discovering innovative solutions that can meet the needs of our community."

Li Wen Lin
Director, IT Project Management Office

PROGRESS STATUS

Indicates the % chance of achieving the activity in the desired timeframe

- Off Track = <70% chance
- At Risk = ~50% chance
- On Track = >70% chance

PROGRESS & IMPACT ASSESSMENT

The following four strategies are associated with the IT Strategic Plan goal “Optimize IT Services.” UDIT leadership reviewed each strategy, assessing progress made on all related activities, and identified whether the pandemic impacted activity achievement (i.e., achieving the activity was not impacted; was positively accelerated; or was negatively hindered, threatened, or disrupted).

GOAL STRATEGY	MAJOR ACTIVITY	PROGRESS STATUS	COVID-19 IMPACT
1. Adopt a structured framework for categorizing IT services and determining the optimal structure for managing the service.	Categorize services as core, consortium or specialized. Continue to use TDX, with the Technology Request, Service Catalog to categorize solutions for future reporting.	Complete	No Impact
	Core services will be available to all members of the University community, funded “off the top” through a University budget allocation, and available at a consistent level of quality and performance throughout the institution.	On Track	Disrupted
	Core services does not necessarily mean UDIT is the provider. Each service will be operated or arranged by the UD organization most appropriately situated to manage it effectively.	On Track	Hindered
	IT Governance will determine when use of a core service should be mandated and how to allocate the costs of fulfilling demonstrable needs for premium capabilities that supplement a core offering.	On Track	Threatened

GOAL STRATEGY	MAJOR ACTIVITY	PROGRESS STATUS	COVID-19 IMPACT
2. Begin the transition to core services with a focus on major enterprise technologies (e.g., learning management system), critical infrastructure, accessibility, and security technologies.	Begin the transition to core services with a focus on major enterprise technologies (e.g. learning management system), critical infrastructure, accessibility, and security technologies.	On Track	No Impact
	Initiate implementation by developing detailed definitions of the scope of each core service and confirming required service levels.	On Track	Threatened
	As necessary work with departments through annual planning and budgeting processes to phase out local services that will be replaced by a core services and restructure budgets to provide funding to sustain the core services.	On Track	Threatened

PROGRESS STATUS

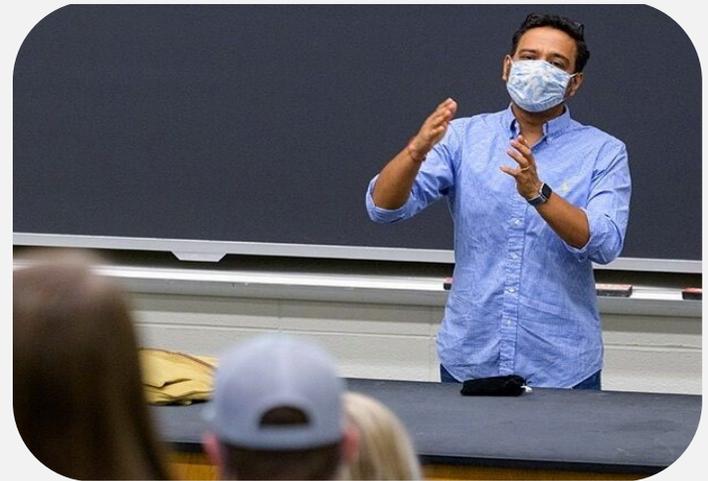
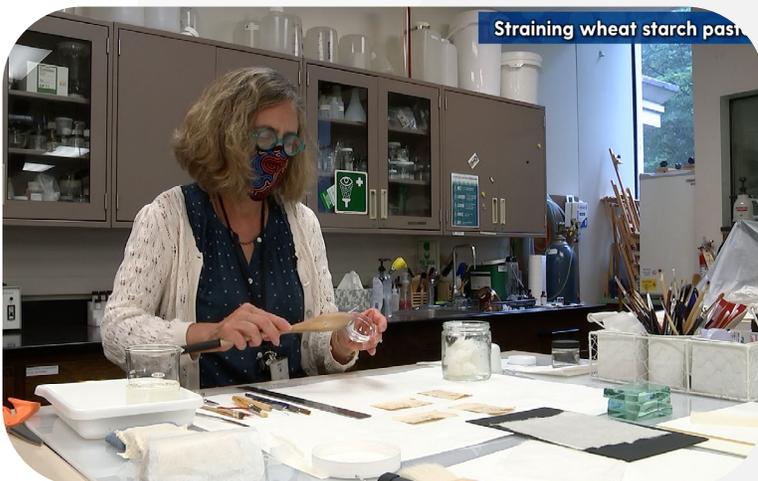
Indicates the % chance of achieving the activity in the desired timeframe

- Off Track = <70% chance
- At Risk = ~50% chance
- On Track = >70% chance

PROGRESS & IMPACT ASSESSMENT (CONTINUED)

GOAL STRATEGY	MAJOR ACTIVITY	PROGRESS STATUS	COVID-19 IMPACT
3. Establish structured governance and service management processes to provide oversight for core services and facilitate continual improvement of all services.	Continue implementing a shared terminology and naming convention for IT services across all IT groups at the University.	Complete	No Impact
	Establish a shared service catalog to communicate the availability of services to constituents.	Complete	No Impact
	Complete the selection and implementation of a consistent software solution for ticketing and service management.	Complete	No Impact
	Create an IT services sub-committee within IT governance to oversee processes to propose new core services and to sponsor assessment of existing core services.	Complete	No Impact

GOAL STRATEGY	MAJOR ACTIVITY	PROGRESS STATUS	COVID-19 IMPACT
4. Develop the IT workforce required for the future.	Devise structured professional development plans for all central and distributed IT staff that extend both technical and non-technical skills.	At Risk	Disrupted
	Define alternative career paths for staff that provide opportunities to focus on tracks leading to management and technical expertise.	At Risk	Disrupted
	Devise more nimble recruitment strategies and create more opportunities for student workers, recent graduates and UD staff moving among IT organizations.	At Risk	Threatened
	Create a workplace for all IT staff that values diversity and inclusion.	On Track	Threatened



UD's Information Technologies (UDIT) organization provides the University with a robust technology environment that allows students, faculty and staff **to pursue academic studies, conduct top-flight research, and manage university operations easily and effectively.** IT is comprised of eight teams, is guided by UD's IT Strategic Plan, and supports IT Governance for the University.

STRATEGIC LEADERSHIP ADVANCES MISSION AND CULTURE

In 2017, Huron completed an external assessment of UD's [Information Technologies](#) organization. This assessment provided key leadership considerations when developing UD's IT Strategic Plan as it related to organizational alignment, investments, and operational efficiencies. Since the Huron Assessment, and with guidance from the IT Strategic Plan, UDIT has continued to mature in agility, execution, and responsiveness—meeting and often anticipating the diverse needs in our University community. Listening to and learning from our partners and clients, we have responded by investing in six key areas: (1) infrastructure and core services, (2) organization and personnel, (3) strategic planning, execution, and relationship management, (4) security and risk, (5) research, and (6) teaching and learning. The outcomes and timeline below capture the progress in the UDIT's organizational development.

Outcomes of Organizational Development

- Improved support for IT services delivery and functions
- Increased focus on communication transparency and faculty, staff and student success
- An enhanced culture of execution and agility
- A climate of collaboration with University communities
- Reduced redundancy and increase organizational effectiveness and efficiency
- Advanced intelligent resource assembly and disbursement
- Improved alignment with University goals, helping to make UD a go-to university

DELIVERING ON OUR MISSION

- IT Governance at UD established
- Hired CISO
- Established Information Security Office
- Created Project Management Office
- Increased visibility of Research Cyberinfrastructure team
- UDIT begins offering 1st Tier service support to colleges/divisions
- IT services staff from Campus & Public Safety and the ID Card Office integrated into UDIT
- Hired Director of CyberInfrastructure
- Established Network & Infrastructure Services team
- Established Enterprise Systems & Cloud Services team
- Hired Enterprise Architect
- Hired Assoc CISO/HIPAA Security Officer
- UDIT begins implementing online learning production support structure

ORGANIZING STRATEGICALLY

- Hired Director of IT Communications
- Hired AVP for IT Strategic Operations
- Created Strategic Planning & Operations team
- Information Technology Strategic Plan developed for University
- Hired Director of IT Service Management
- IT services staff from FREAS integrated into UDIT

CREATING A VISION

- Huron Assessment of UD's Information Technologies organization completed
- Hired new Vice President of IT and CIO
- Hired Director, Project Management Office

FY2018

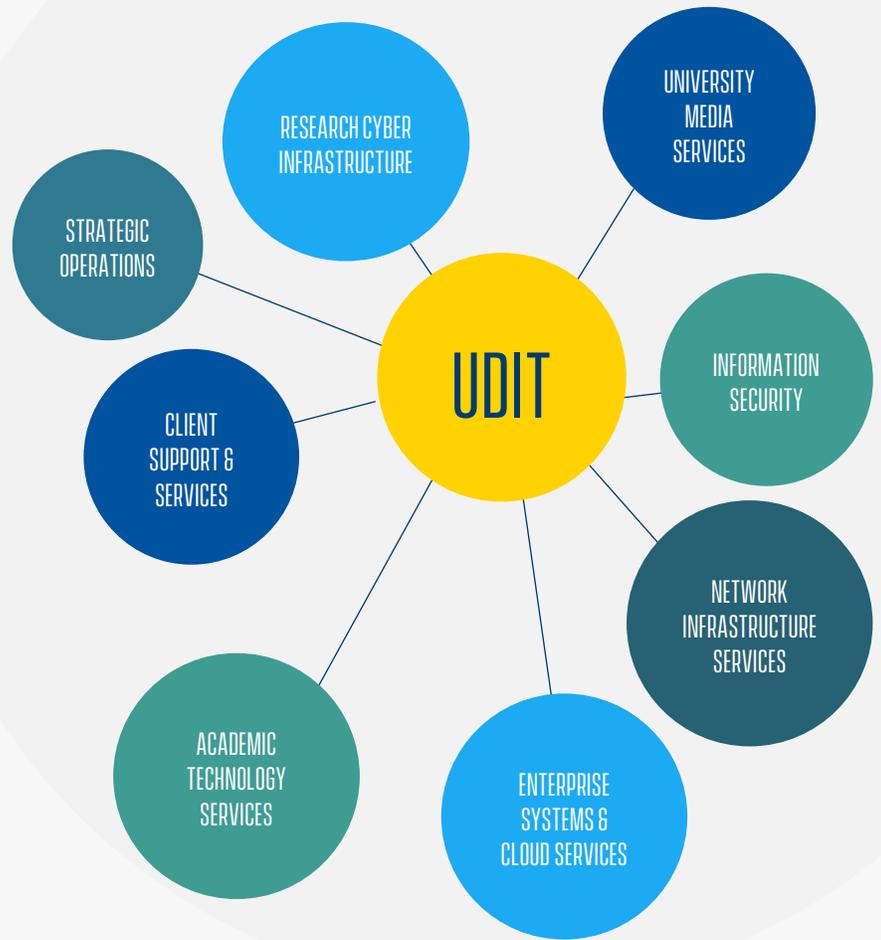
2019

2020

IMPACT OF COVID-19 ON ORGANIZATION

In spring 2020, as a measure against the financial impact of COVID-19 across the University, UDIT's part-time workforce was reduced by 11 full-time equivalents (FTE). Remaining full-time staff hours were reduced by five percent. In winter 2021, further reductions were necessary. Effective February 1, 2021, UDIT was comprised of 177 staff, down from 206 positions in 2020—a reduction in UDIT's full-time workforce of 14%. Reductions, including retirements, negatively impacted UDIT's bench strength, knowledge base, and diversity.

This decrease in UDIT workforce and diversity was keenly felt by UDIT staff whose workloads had already increased sharply. As it pivoted UD to an entirely remote landscape, UDIT expanded its service and support model and its technology and tool portfolio while moving all classes online and enabling UD faculty, staff, and students to teach, work and learn remotely.



ADDRESSING COVID-19 CHALLENGES

- Temporary IT structure to support STAR/South Campus established
- Pandemic results in reduction in nearly all part-time UDIT workforce (11 FTE)
- New academic and customer support positions housed in UDIT to offer instructional design, digital media, technical writing, online learning, and support center services
- At request of executive leadership, UDIT provides restructuring plan for 2021 and beyond
- Pandemic results in 14% reduction in fulltime UDIT workforce
- UDIT submits organization requests for IT-Client Support & Services and IT-Information Security

2021

LOOKING AHEAD

As we move forward as an organization, we will continue to focus on gains in efficiencies and productivity—such as those in procurement, service delivery, IT spend, and return-to-work opportunities—as well as opportunities to streamline and partner in support across the institution. In support of work being done at the University, UDIT will look to increase visibility to its Project Management Office as well as request refinements to its organizational structure to streamline critical need areas, including information security and client support and related services. UDIT will also redouble its efforts in diversity, equity and inclusion, seeking to counter losses resulting from recent retirements and reductions.

2022

IT Wins are IT activities completed during the fiscal year that have a strong, positive impact on the UD community and the IT organization. Activities consist of a completed IT project, a program or process launch, an improvement in some area, or activities that provide operational support. IT Wins support our institutional priorities and the University’s IT Strategic Plan.

- 100Gbps Optical Ring to Philadelphia
- 1st Caviness HPC Expansion
- 2019 ACA & 1095
- 2205 transition to online
- Add support for Level III data to UD IaaS (2)**
- Adjust HCM account creation process
- Adjust UDSIS term dates
- Alumni Account Migration
- ARMS ERP Adoption
- ARMS extract
- Athletic Ticketing (Paciolan)
- Axiom and Position Vacancy
- BPI: NIS Infrastructure Rollout
- Campus Firewall Upgrade & Border Protections
- CARES Act Self-Service Refunds
- Central BI&A Platform - HelioCampus Implementation
- Child Support Files
- Cognos Contest Issues
- Copland Apache Upgrade
- Core Service standardization in TeamDynamix
- Course Continuity Workshops
- COVID-19 Call Center Deployment
- COVID-19 Command Center Deployment
- COVID-19 Delaware EDUROAM Map
- COVID-19 Triage Center - NIS Deployment
- Create new UDSIS grading basis
- Create process to do mass LOF for HCM
- Dining Mobile Point of Sale
- DLEO Professional Development for Instructors
- eduroam partner Wi-Fi statewide rollout
- Enabled New Student Orientation in Canvas
- Faculty Appraisal Project
- Federal Compliance: Registrar Webforms
- FM Systems GM extract
- FREAS o365 Tenant Migration
- Gift balance access to DAR
- Grad Turnaround Process
- Grade Forgiveness
- Grading Basis Changes
- HCM modify dept table
- HCM PA Tax Withholdings
- HCM PUM 33 & tax update 20a
- HenMUN
- ID interface LOF action reason
- Improved Course Continuity Website
- Install 1095 patch
- Install update to State Wage Report
- Instructional design services for online programs
- Just-in-Time Teaching Workshops
- Kace Upgrade
- Kaltura
- Kickstart server upgrades
- LAM obligations
- Launch Teaching Online Bulletin and website
- Launch Tech at UD website
- Launch Work/Learn/Teach from home webpages

- Maintain scheduled queries
- Mass update department (dept) table
- Mass vendor cleanup for Jaggaer
- Medics Elite Software Upgrade
- Microsoft Teams
- Move-In IT Support
- MyUD refresh
- New Faculty Promotion & Tenure system
- Online Master of Accounting Practice Development
- Provost's Online Coordination Committee
- Patch Sequoia Retail
- Patch WebLogic software
- Paycheck (FLX) Revamp
- Personnel Location/Work Status Tracking
- Photo Upload Strategic Functionality
- Point-of-Sale Wi-Fi for Perkins Food Trucks
- Refund parking fees
- Remote/no-touch installs and configuration
- Renovation of Studio A
- Residence Hall Access
- Secure Documentation Collection
- Secure Email Implementation
- Securian extract
- Sequoia POS
- Soft-launched Knowledge Base
- Spring 2020 academic regulation changes
- Standardization essential employee information
- Stop UDSIS enrollment in travel courses
- Student Employment Mass Update
- SuperCluster Patching SC1
- Supported/Participated in Student Focused Events
- TeamDynamix Campus Rollout for Service Desk
- TeamDynamix Faculty Commons Ticketing App
- TeamDynamix IRE Ticketing App
- TeamDynamix UDIT Purchase Request service and workflow
- TeamDynamix UDIT Review of IT Purchase Requests
- Tech Open House
- Technology Loaning
- TIAA Annual True up
- UD Esports Arena
- UD Mobile Ordering Dining App
- UDSIS Grading Basis Request Form
- UDSIS PUM 16
- UDSIS PUM 17
- UDSIS revoke SOC access
- Virtual Computing Lab
- Virtual Faculty Senate Meetings
- Virtual IT Support for Staff/Faculty
- Virtual IT Support for Students
- Virtual Welcome Bar
- VPN Expansion (Teaching, Learning, Working from Home)
- W-4 Modifications
- WebForms inbox reports
- Zoom (Dec 1-June 30)
- Zoom Phone Emergency Rollout



*THIS PAGE:
FY2020 IT WINS*

THIS PAGE:
FY2021 IT WINS

2020 ACA Patches
 AAUP 2021 Dues Increase
 Add section number for bookstore orders
 Adjust custom process for Class Attributes
 Adjust custom process to roll UDSIS Terms
 Adjust custom process udigrdu
 Adjust Equifax extract
 Adjust HR auto account create
 Adjust look back period
 Adjust M&T bank interface
 Adjust MetLife interface
 Adjust State Pension interface file
 Adjust Student Official Extract (10th day)
 Adjust webforms inbox report
 AFSCME 2021 Union Dues
 Annual TIAA True Ups
 Apply Oracle PRP patch
 Athletics SQL server migration
 ATS Canvas Templates
 ATS COVID-19 Response Report
 Audit Grants attachement deletes
 Balance adjustment for retirees
 Barnes & Noble Extract
 BofA card reissue addresses
 Bulk Upload - Essential Employees
 BW deductions begin dates
 Canvas Connect Conference
 Canvas Course Creation automated
 Canvas guest account support
 Caviness Expansion #2
 Change to the transcript print dates
 Change Veterans Educational Benefits URL
 CIP Year on NSC enrollment report
 Collaborative NSF CC* grant award
 Concur COA Interface
 Concur speedtype interface
 Concur User Interface
 Configuration of IT Standards portal in TDX
 Contract /IT Review
 Convert vendors to new 1099 tax codes
 Create audit record for attachment deletes
 Create filter for UDX obligations
 Create mass charfield update process
 Daily bookstore extract
 Daily file for Employee Verification, Equifax
 DARWIN Cluster implementation
 DARWIN national integration with XSEDE
 Delaware Debates
 Delete a Term from Schedule of Classes
 Delivered Keep Calm and Teach On
 New Faculty Orientation course
 Disability Updates
 Distributed ID cards during move-in
 Diversity, Equity & Inclusion: ARIA
 EAB interface
 edTPA and PPAT scores
 Equifax Interface
 ERP Security Patching
 ERP Transition Plannig Study
ESCS Risk Mitigation software upgrade (2)

Faculty Promotion and Tenure (P&T)
 Faculty P&T email notification
 Fall 2020 updates-Athletics ARMS data
 FI 1099 for tax year 2020
 FICA excludes/FICA refunds
 FICA Refunds for Spring 2021 Semester
 FIN 1099 patch
 Flex & Dining Points Balance Web View
 Fusion Mobile App
 Future hires for ID interface
 Genworth Deductions Ending
 GL recon instructions
 GrubHub Kiosks in Trabant
 Hired additional ID, COMM, and DM staff
 HR Securian Interfaces
 Hybrid Classrooms
 IAM: met Incommon Baseline 2 Expectations
 ID Interface
 Identity and Access Management
 Inactive supervisors
 IT: TruCredential/Additional Table (UDPD)
 Jaggaer interface enhancements
 Jaggaer to PS, PO Reopen
 JED error page
 Kace Upgraded to v11
 Lab School: Outdoor virtual Learning
 Learning Technology Acquisition
 Load new F&A rates
 Microsoft License Redesign
 Migrate Maximo to central IT LDAP
 Migrate Time & Attendance system (Cloud)
 MS Conversion
 MyUD Settings enhancements
 MyUDMobile Pilot
 New Canvas Course Process
 New Course Scheduling Platform
 New Facilities Space Management System
 New Faculty Orientation
 New Role for Veteran Access/Updating
 New W4 Form
 OEI Secure Document submissions
 OFCCP Audit Payments
 Online W2s
Oracle 19c upgrades (8)
 Papercut Wireless Printing
 Part time instructional designer staff
 Educause ITSM Community Group
PeopleSoft updates (3)
 Poll Everywhere Remote Polling Platform
 Preferred Name for BBTS
 Program Plan Stack Batch Update
 Redesign of ATS websites
 Refresh dblinks after non-prod DB refresh
 International Refund Requests
 Refresh Payroll-Contacts Mail List
 Remove UDSIS link
 Renovation of Studio C
 Reporting on newly benefits eligible
 RO Abstracts

SDM datamart
 Secure Documentation Collection
 Send history data to AIP
 Shibboleth Service Efficiency Gain
 Shift class meeting dates for term 2213
SSO integration-3rd-party service (15)
 Slate to UDSIS interface
 Spouse Card Request
 SSL certificate renewal
 Student Refund - CARE Act - HEERF II
 SuperCluster Patching SC1, SC2
 Support annual IT Audit
 Support Axiom
 Support BofA (Multiple)
 Support Jaggaer integration
 Support patching of bsr
TeamDynamix Campus Rollout/Integration (10)
 TeamDynamix integration with Microsoft Teams
 Teamworks Registrars Data Integration
 Terra Dotta interface
 Textbook link
 TIAA Vesting - Testing Feedback File
 Transact 3.13.3 upgrade
 Transact Interface for Wellness
 Transcript print dates for Fall 2020
 Transfer Credit Matrix
 UD Capture (July 1- Dec 2)
UD COVID-19 Administrative Activities (22)
 UD COVID-19 Contact Tracing Solution
 UD COVID-19 Course Continuity Workshops
 UD COVID-19 Dining-People Occupancy
 UD COVID-19 Expanded Testing Support
 UD COVID-19 Health Check
 UD COVID-19 LIMS Cloud System Implementation
 UD COVID-19 Provisioning
 UD COVID-19 Student Laptop Loaner Program
 UD Exchange (Jaggaer Implementation)
 UD WorkForce T&A (UD Time)
 UDIT Sponsors 2020 GIS Day
 UDPD Campus Trespass System
 UDSIS ISIR patch
 UDSIS SOC adjustment
 UDSIS to Slate interface
 UDSIS facility room ID
 Update Check Pre-Reqs Customization
 View for Axiom
 Virtual Event Services
 Virtual New Student Orientation
 Virtual Welcome Bar
 W-2 Consent for Electronic Delivery
 Webex Call Center - E&SFS Migration
 Webinar coordination/support central service
 Wellness Eligibility
 Whitney Athletic Center: ESCS/NIS Support
 WORKS Reimb - New Withholding Codes
 Worriow Hall: NIS Infrastructure Rollout
 Zoom (July 1- Dec 2)

IT Projects are IT activities completed during the fiscal year that have gone through the University's formal technology request and response process overseen by UDIT's Project Management Office (IT-PMO). IT Projects have a strong, positive impact on the UD community and may be requested by any faculty, staff, department or organization.

15Five Web-based Performance Management Tool
 4-H Online/Registration Max Membership Management System
 Accessibility: Renew Blackboard Ally
Accessibility: Renew Kaltura video management platform (2)
 Accessibility: Training/Courses
 Annual software support for Telephone paging software
 ARTC Cashnet Functionality
 Aruba Wi-Fi hardware & software support contract
 Athletics: Paciolan integration with UDeposit
 Cadence Student Use Off Campus
 Campus core network & firewall upgrades to 100Gbps
 Career Services student data for Handshake
 Chico State Enterprises - California State University
 Cidilabs DesignPlus
 Cisco VPN Servers Maintenance (Anyconnect)
 Classroom Hybrid A/V build out
 CogniLearn InteDashboard
 Commencement software StageClip
Contract review and vendor risk assessment (3)
 Contract Review: ePlus for Firewall/Network Upgrade
 Coordination of RF spectrum service (Christiana towers)
COVID-19 Academic Software Response Projects (6)
COVID-19 Academic Success Projects (3)
COVID-19 Administrative Response Projects (3)
COVID-19 Commencement Support Projects (1)
COVID-19 Health & Safety Projects (9)
 COVID-19 LIMS System Implementation
COVID-19 Staffing Support Projects (2)
 Creative Curriculum Cloud
Credit Card Processing to Cloud Service Provides (3)
 Critical battery & fan replacement
 DAR: SAML Federation for Overture
 DataWorks
 DATI InfoSys Modernization
 DEDC
 Dell -Student Financial Services Hardware
 Dell desktops for Purnell Computing Labs
 Dell EMC Networker and DataDomain service renewal
 Dell via IP DataSystems
 Demo Cisco & Palo Alto VPN appliances
 Development of Avian Demographic data management system
 Digital Accessibility Program
 Document viewer
 DRC Slack for Education
 DVL-Chapel Generator Starter Motor Replacement
 Dye Hard Ecommerce
 E-Plus Imperva WAF Support Renewal
 E911 support
 Eliteform - Velocity Tracking Device
 Ellucian Advance upgrade (DBA support, hardware replacement)
 Employee Development Group hardware purchase.
 Enabling Refworks RCM in Word 365
 Enercalc
 Enhance S-contract
 Enhanced financial reporting capabilities

Enterprise identity and access management
Enterprise Software Renewal, Maintenance (7)
Enterprise SSO Support-External Sources (5)
 ERP Transition Planning Study
Exchange/Gmail Account Migration (3)
 Expand PCS course offerings with GreenFig
 Extract Proposal Award Abstracts (O365)
 F5 via CDW: Upgrade UDIT Load Balancers
 FaceGen
 Facilities Major Projects Management Software
 Facilities Overtime Management System Research
 Facilities: Upgrade Maximo to 7.6.1.2
 Faculty Promotion and Tenure System
 Failed UPS replacements
 Fiber cleaning and launch cords for fiber installation, maintenance
 Franca Barton LLC Review
 FusionGo Mobile App
 Genetec
 Google storage rationalization and mitigation Discovery
 Grand unified logging project
GraphPad prism (2)
 Grid Engine Software Renewal for HPC Clusters
 GrubHub Kiosks in Trabant
 GSCRF webform-Grad Intern Off Campus Code
 Hardware, software for control electroencephalography equipment
 Harker ISE - Network Infrastructure Upgrade
 HelioCampus data warehouse rollout
 How UD Works
 HPE DL380 Server Hardware Support Renewal-WSUS Server
 HPE Server Support for Splunk Hardware
 HR Process Improvement : Job Employment Data
 HR Securian Interfaces
 HR: Supplemental Pay Web Form
 Hybrid Classroom-Pearson Auditorium
Identity and Access Management Program (2)
 IDZone
 Implement a WebServices API for JVs
 Implementing Spring 2020 academic regulation changes
 Improved integrations with residence life cloud services
 IMS
 Incsub, LLC
 Infobase/FactsOnFile for UDLib/SEARCH Program
 iPaaS Initial Implementation
 IT: Card Technology Security Upgrade for MiFare
 IT: Transact E-Accounts Enhancements Rollout
 IT: TruCredential/Additional Table for UDPD (among others)
 JAMF Software
 JOOL/Kumanu
 JV Webservices API
 Kaplan I-Human Vsims
 Kumo - Indiana University
 Laptops for COE-IT inventory
 Lexis-Nexis public records access
 LinkedIn Corporation
 LiveStream Loudis Recital Hall

TOTAL ACTIVE/COMPLETED 374 IT PROJECTS

LMS Enhancements-Instructor Requested (3)

- Localist Renewal (Events solution)
- Maintenance Issue
- MakerGym MakerFleet
- Maximo Facilities LDAP Migration
- McKinley Building Replacement
- Meltwater Renewal
- MEMS Software
- Merit-renewal
- Microsoft Developers Network Purchase

Microsoft License Redesign (10)

Microsoft License Redesign Projects (10)

- Migrated Code42 to Cloud
- Migrating enterprise file storage to cloud services
- Migration of Box.com to Alternative Cloud Service (o365)
- Modernization of UD's virtual desktop infrastructure
- Modernize Microsoft identity and access management systems
- Morris Library Information Room Computer Replacement
- Mplus (Muthen & Muthen)
- MSC Digit
- MTM - Cisco/Intelepeer Voice Subscription
- NCC Extension Room 132A & 132B HDMI Upgrades
- Need a solution for University departments to sign up for graduation recording sessions

Network and Firewall Upgrade (5)

- New advanced operational log system
- New automated enterprise service monitoring system
- New Course Scheduling Platform
- New Dell fileserver to replace a failing existing system.
- New optics for network monitoring sensors
- New W4 Form
- NIIMBL-Salesforce Renewal
- NIS Network Deployment
- NYSERNet Annual Membership 2021 (IT Purchase Request)
- OneCard support: ID Card purchase
- Online Learning
- online tool designed to create donor microsites
- Online training for Telephone Services
- OTDR Service and Recalibration
- Othot
- Palisade Decision Tools
- Parchment Receive Premium
- Parking Logix
- Parts for Install/Maintenance Stock
- Pending GRC Contract Reviews
- Picture Mosaic for Whitney Athletic Center
- Piestar Research Management Solution
- PO Accessibility Questionnaire
- Princeton Hosted Solutions
- ProChain
- Delawareables/ Vendor: StatSports

ProWatch v5 Upgrade Project (2)

- Purchase Approval - Morris Library 200B A/V
- Purchase approval request for SMDC loaner laptops
- Purchase radio transmitters from Cellular Tracking Technologies
- Qlik vs. CAP/HelioCampus Cost/Benefit Analysis

- Reach Media Digital Signage Platform
- Refresh classroom lecture capture system (UD Capture)
- Renew the college's existing EMC Networker HW and SW licensing
- Renewal of Bentley/Citilabs Cube Software suite ELA
- Renewal of maintenance contract on HP Designjet T3500 Plotter
- Request for a My UD app
- Request for additional vendor support hours

Research & Academic Software Renewal (27)

- Research Participant Payments Tracking Solution
- Sage Vantage Courseware
- Satellite Receiving Station Support Renewal
- Simulation-Technology Computer Aided Design (TCAD)
- SEO services
- ShareGate desktop-sharepoint migration tool
- SkillSurvey Career Readiness Platform
- Spirion Re-evaluation
- Spouse Card Requests
- SQL Server Migration Standardized Container Environment
- StarRez-UDelNet to UDID Update
- StudentApply

Support for Blue Light Emergency Phones (3)

- Support of Polar DCL Project Collaborative Research
- Sussex Hall - Removal of Juniper 4500
- Take Out for Vita Nova
- Tallo
- TAO Connect
- TeamDynamix (TDX)
- TDX: Migrate off SmartSheet
- TDX: iPaaS

- Teamviewer remote software renewal
- Teamworks Registrars Data Integration

Technology Purchase Reviews (53)

Technology Request/Contract Review (4)

- Telecom Environmental Monitoring Request
- Temporary Oracle DBA position
- The Intelligen SuperPro Designer/SchedulePro Software
- Tobii Eye Tracking Hardware and Software
- Topcon Magnet Tools

Transfer Course Evaluation Webform (2)

- TTP-247 Thermal Transfer Printer
- UD Creamery opening at B&N
- UD Exchange (JAGGAER Implementation)
- UD Mobile Application Program (RFP Phase)
- UD Name Type Project
- UD/Pledgemine Partnership
- UDcapture Refresh
- UD Microsoft Outlook Zoom Add-on fixed
- UDIT-Grand unified logging solution Discovery
- UDIT-Standardized Container Environment Discovery
- UDIT-Anti-phishing Platform Discovery
- Upgrade of remote trigger black hole routing VMs

UPS Battery Preventative Maintenance (4)

- Upstream Strategies
- Using Poll Everywhere in Microsoft o365 (Ipad/Zoom Use)
- UWorld (NCLEX-RN Qbank & Self-Assessment Tests 1 & 2)
- W-2 Consent for Electronic Delivery

Warner Hall Renovation (2)

- Watermark Renewal
- Web Contract Renewal: Thunderstone Webinar
- Web site development
- Website for R01 NCI Study
- WhenToWork
- Whitney Athletic Center Palo Alto Firewall Support
- WIN AD Security Enhancements
- Work Number (Equifax) - Employment Verification

The following people were employed in UD's Information Technologies for all or part of fiscal years 2020 and 2021. Their dedication, innovation, and perseverance underpin the achievements highlighted in this report.

David Abrams
 Van Adams
 Lorenzo Alafriz
 Carol Anderer
 Richard Andersen
 Walter Andress
 Nitin Armstrong
 Carl Asti
 Richard Atkins
 Jason Atkinson
 Krzysztof Bakowski
 Sergey Baldychev
 Laraine Banks
 Fatema Bannat Wala
 Sean Barefoot
 Heather Baver
 Thomas Baxter
 Benjamin Bishop
 Robert Blandford
 Ryan Boisclair
 Evangeline Boyd
 Andrew Brett
 Laura Brink
 Henry Brodlo
 Mark Buckmaster
 Patricia Burke-Lund
 Robert Burnham III
 Mark Cabry
 Jason Gio Camaclang
 Matthew Campagnola
 Abigail Campbell
 James Cannon
 Mary Ellen Cannon
 Mark Carrow
 Marabeth Cartwright
 Jason Cash
 Michael Casini
 Christopher Chandler
 Kyle Chappell
 Alexander Checchi
 Christine Cheserone
 Uma Chrisostam
 Salvatore Ciro
 Asya Cobbs
 Shirley Coen
 Sarah Cole
 Daniel Coleman
 John Collins
 Daniel Connor
 Matthew Connor
 Richard Copley
 Shawn Cosgrove
 Susan Costa
 Lauren Costello

David Costrini
 Evans Coursey
 Matthew Coyle
 Marilis Cruz
 Michael Cummings
 John Daly
 Dharni Damle
 Catherine Davis
 Earl Davis
 Michael Davis
 Blaze Delaney
 Thomas DelleDonne
 Laura Deschere
 Peter Deschere
 Carlos Diaz
 Christopher DiBartolo
 Megan Dilorio
 Robert Dilorio
 James DiStefano
 Trevor Dolbow
 Dylan Dombroski
 Joseph Dombroski
 Christopher Donohue
 Patrick Dougherty
 Heidi Dowlin
 Meghan Doyle
 Madeline Dozier
 Juley Dricken
 Marnae Duffy
 Marvin Duffy
 Deborah Durant
 Theresa Dutch-Tynan
 James Dutton
 Franklien Eastman
 Eric Eckman
 Molly Esterling
 Kasey Feldtmose
 Dylan Flogaus
 John Floropoulos
 Stephen Fols
 Trevor Foresta
 Melissa Fox
 Jeffrey Frey
 Shari Galgano
 Amy Garbini
 Edwin Garcia
 Srinivasa Garlapati
 Ann Gerwitz
 Charles Gibbs
 Matthew Gleason
 Diane Goldsmith
 Sean Goodwin
 Lynn Grant
 David Greback

James Greco
 James Green
 Cynthia Guerrazzi
 Jolly Gupta
 Fraser Gutteridge
 Steven Halfen
 Frank Handschuh
 Daniel Harris
 Jevonia Harris
 Karl Hassler
 Ratna Hayes
 Mu He
 David Heck
 Crystal Henderson
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 Colleen Hick
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 Jason Hinmon
 Kimberly Hirschenhofer
 Matthew Holden
 Matthew Horelick
 Michael Huber
 John Huffman
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 Paul Hyde
 Anthony Ianozi
 Vincent Jackson
 Debra Jeffers
 Gwen Jones
 Brook Kebede
 Lauren Kelley
 Duncan Kelly
 Joseph Kempista
 Cameron Kennedy
 Susan Kennedy
 Cecilia Kerlin
 Aileen Kerrigan
 Michael Kerrigan
 Brian Kilduff
 Janet Kim
 Paige Kistler
 Bryan Kite
 William Knox
 Seth Kohn
 Avyank Kuncha
 Michael Kyle
 Barbara Laber
 Charles Lambert
 Kevin Langan
 Seena Langroudi
 Rachel Lapp
 Lawrence Larraga
 Kevin Lee

Christopher Leonard
 Racine Lewis
 Jonathan Li
 Mengyu Li
 Yifu Li
 Jhunyee Lin
 Li-Wen Lin
 Alex Lindstrom
 Stephen Litterst
 Iulia Liusenco
 Francis Logullo
 Glen Loller
 Jeremy Mahieu
 Robert Mann
 Charles Marsh
 Christopher Martin
 Kyle Martin
 Miriam Guthrie Martin
 Thomas Mascitelli
 Kevin Mason
 Michael Matimu
 Justus Matteson
 Matthew Matusek
 Steven Mausolf
 Lauren Maxfield
 Karen May
 Michael Mays
 Christopher McCurdy
 Ryan McDevitt
 Janice McFarland
 Kelly McLaughlin
 Robert McLean
 Brian McMahan
 John McMillan
 Sarah Meadows
 Kiera Meighan
 Theophilus Mensah
 Kathleen Milewski
 Ben Miller
 Danielle Miller
 Korey Mitchell
 Michael Mizikar
 Zankar Modi
 Nicholas Moon
 Aletia Morgan
 Eva Morris Urbizo
 Hali Muldoon
 Maria Mullin
 Galen Nare
 Ronald Nichols
 Patrick O'Beirne
 Melanie Obitz-Bukartek
 Kyle O'Donnell
 Nancy O'Laughlin

Edwin Ortiz
 Luis Padilla
 Catherine Painter
 Rejina Pandit
 Veronica Parker
 Jigar Patel
 Vishva Patel
 Sayon Paul
 Arul Paulus-Rosenow
 Alice Pawlowski
 Eric Pedernera
 Adrian Peterson
 Bridget Pettit
 Sandy Pham
 Dylan Phillips
 Edwin Phillips
 Stephanie Pickering
 Michael Piscitelli
 Sharon Pitt
 Mathieu Plourde
 Pradeep K Polavarapu
 Michael Porter
 Craig Prettyman
 Samaje Pritchett
 Richard Quickle
 John Quigley
 Andrew Rafferty
 Jessica Rainey
 Bruce Raker
 Christopher Raker
 Lisa Raker
 Joseph Rapposelli
 Melvin Rau
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Michael Redfield
 Virginia Redmond
 Brion Reilly
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 James Schelts
 Justin Schnee
 Jessica Schroeder
 Anita Schwartz
 Doke Scott
 Sowmya Shankar
 Kevin Shortall
 Amy Shultz
 Erin Sicuranza

Maymuna Siddiquea
 Kenna Smith
 Nickalus Smith
 Olena Smith
 Tyrone Smith
 Denise Spencer
 Robert Spotts
 Michael Sprouse
 William Start
 Evelyn Stevens
 Julie Stewart
 Brady Stoops
 Kenneth Strother
 Demetrius Sturgis
 Indijas Subasic
 Jamie Summerfield
 Madhuri Surampudy
 Raja Rao Surampudy
 Jann Sutton
 Jennifer Szymanski
 Jacob Takayama
 Michael Tate
 Melvin Tejada
 Shewit Tequabo
 Isabella Thomas
 Don Paolo Tiamson
 Steven Timmins
 Lauren Toews
 Brandon Toole
 William Totten
 Ilana Valins
 Amanda Vander Valk
 Jose Vasquez-Fonseca
 Cara Vieira

Lindsey Vitalo
 Daniel Waegel
 Julia Walker
 William Walker
 David Wallace
 Nora Wallace
 Jiamian Wang
 Robert Wardell
 Liam Warren
 Ben Warrington
 Anne Watson
 George Watson
 Tyler Webber
 Mary Webster
 Stacy Weile
 Andrew Weisskopf
 Letcher Whaley
 Jennifer Whisler
 Beverly Wieland
 Erik Williams
 Paul Williams
 Lily Wu
 Christopher Yasik
 Evan Yauchuczek
 Mark Yetter
 Zachary Ziegler
 Lucas Zlock

PHOTOGRAPHS

Page	Contributor/Photo Credit
1	Academic Technology Services Department of Art Conservation
8	Academic Technology Services
9	Academic Technology Services
14	Kyle Chappell (University Media Services) Department of Art Conservation
15	Evan Krape (Office of Communications and Marketing)
20	Evan Krape (Office of Communications and Marketing)
27	Kyle Chappell (University Media Services)
28	Randy Reynolds Evan Krape (Office of Communications and Marketing)
33	Academic Technology Services
36	Kyle Chappell (University Media Services)



INFORMATION TECHNOLOGIES

192 SOUTH CHAPEL STREET, NEWARK, DE 19716

IT.UDEL.EDU