

Information Technologies Activity Report

September 2016 – January 2017

2FA required for full-time UD employees and faculty

Full-time employees and faculty members who have not yet enrolled in two-factor authentication (2FA) should sign up at [My UD Settings](#) before 2FA becomes mandatory on Feb. 13, 2017. Enrolling in UD 2FA protects your account, your personal information, and information in your care.

After enabling 2FA, members of the University community log in using a temporary security code in addition to their UDeINet usernames and passwords. Enabling 2FA makes it much less likely that a hacker can access your UD account. 14,186 members of the University community are using 2FA as of Feb. 1.

As IT promotes security initiatives across campus, other audiences will be required to enroll in 2FA. In addition to 2FA becoming mandatory for full-time employees and faculty members on Feb. 13, 2FA is being phased in for other groups: Graduate students have been required to use 2FA since Nov. 28; ELI students will be required to use 2FA beginning on Feb. 14; undergraduate students, part-time employees, retirees, alumni, and other groups will be required to use 2FA in the future.

In addition, starting in February, many forms and applications containing sensitive data will require users to be enrolled in 2FA. Even if 2FA protection is not yet required for someone's UD account, they must use 2FA in order to access these UD services. Since mid-2016, VPN connections from off campus or unsecured Wi-Fi networks have required 2FA. On Feb. 6, certain student financial forms will require 2FA, and UDataGlance will require VPN—and, therefore, 2FA. On Feb. 20, payroll and HR forms that require an employee or faculty member to transmit confidential information will require 2FA.

For more information about 2FA, go to the UD IT [2FA help pages](#), contact your departmental or college IT staff, or contact the IT Support Center by submitting a [Help Request form](#), emailing consult@udel.edu, or calling (302) 831-6000.

Adapted from [UDaily article](#), published Jan. 20, 2017.

Planned Outages

Student Information Systems

UDSIS is scheduled to be patched with the latest round of patches and fixes from Oracle on Saturday, March 11. The system is expected to be down from early in the day until late afternoon.

Information Security

Secure UD Student Agreement

The Secure UD Student Agreement was released to new UD students on Jan. 18, 2017. This cybersecurity tutorial and agreement replaces the ECCE program that the University released in 1995.

All new students will access the Secure UD Student agreement via Slate (My Blue Hen Home) after they have paid their deposits. Completing it is required before a new student can set up his or her UDeINet (email) account.

Last call for 2016 Secure UD Training

Last September, UD IT launched phase three of 2016 Secure UD Training. The 2016 Secure UD Training cycle will end this February; employees will have until mid-February to complete their phase three modules as well as any other training that they have requested.

[Secure UD Training](#) uses short, topical training videos to address key ideas in information security. University employees are encouraged to complete Secure UD Training to better equip themselves to face cyber threats in their personal and professional lives. If you have not already done so, we urge you to complete your 2016 Secure UD Training.

Secure UD Training is refreshed annually to help the University community stay aware of current cyber threats. The 2017 Secure UD Training program will launch in late February.

UD Passwords expire after 15 months

As part of the Secure UD Initiative, passwords older than 15 months are now expiring. If your password will expire within 30 days, you will be alerted when you log in to your UD account. We encourage you to change your password when you see the alert screen so that you will not have to change your password if you are busy later. If your password expires, you will be unable to log in until you reset it. Go to [My UD Settings](#) to reset your password.

New passwords must adhere to several security rules. For example, passwords must **not** consist of a single word or name, must contain a variety of character types, and must be at least 12 characters long. The full list of [password best practices](#) is available at the Secure UD website.

macOS managed desktop series

IT Client Support & Services (IT-CS&S) led a pair of sessions presenting the findings of a summer UD-wide focus group on developing standards for securely managing macOS desktops. During the spring semester, half a dozen presentations on individual topics including profile distribution, whole-disk encryption, and domain joining macOS systems will be offered. These sessions, in combination with those held previously on securing Windows systems, provide a comprehensive framework to help departments and colleges comply with the standards described in [Secure UD Essentials](#).

CrashPlan pilot

IT-CS&S is conducting a pilot program on backing up administrative laptops with CrashPlan. CrashPlan encrypts backups on the local machine and transports them to the vendor's cloud-based storage. All encryption keys are kept on a local dedicated server accessible only to UD personnel. This model minimizes risk of data compromise. The software is being rolled out to departmental laptops managed by IT-CS&S in combination with whole-disk encryption.

Infrastructure

Cable TV channels updated

On Jan. 18, 2017, Comcast updated the channels on the campus cable TV (CATV) system. If your department has televisions connected to the UD CATV system, you may need to have your television rescan for channels. ([Updated CATV channel lineup](#))

Constituent Groups & Feedback

IT Professionals meeting series

For several years, IT-CS&S has organized an “unconference” at which college and departmental IT staff discuss a variety of technology topics. Beginning this year, IT-CS&S is going to expand the number of meetings it hosts for campus IT professionals. The plan is to retain the annual unconference and the annual Tech Fair and to add four meetings a year at which central IT and departmental IT staff would discuss challenges, possible solutions, and

best practices. The first 2017 meeting will be on March 8. More information will be shared with the IT-Pros Google Group. Departmental IT staff not in the Google Group can send a request to join to consult@udel.edu.

IT Technology Ambassador program

The IT Technology Ambassador program has been using social media, table events, and a three-point promotion plan to increase student engagement with IT. The ambassadors use the hashtag “#askITatUD” to tweet about IT events and share tips for secure technology use. The ambassadors have also conducted focus groups and distributed information about IT on both the Wilmington and Newark UD campuses.

In the fall semester, the ambassadors promoted regular password changes, Microsoft Office 365, and McAfee antivirus software to students. During the spring semester, the ambassadors will promote these topics to UD students: the eduroam secure Wi-Fi network, two-factor authentication (2FA), and student WordPress sites.

Research Support

Mills and new cluster updates

The Mills High Performance Computing (HPC) Cluster is now past its original end-of-life date but remains functional based on the criteria listed in the [policy document](#). Researchers whose work remains on Mills are encouraged to buy into the new HPC cluster that is in the final stages of design development. UD researchers interested in purchasing computing nodes in the next cluster or wanting to learn more about UD’s HPC community cluster program should email it-hpc-interest@udel.edu.

HPC training in October and January

IT Research Computing staff offered a variety of training sessions during October 2016 and January 2017. Topics included Introduction to UNIX, shell programming, vi, and getting started on Farber. We also participate in XSEDE monthly workshops and other training events. An updated list of training events, topics, and dates is available at the [Research Computing website](#).

HPC Symposium series

- **September 2016:** [Sunita Chandrasekaran](#), assistant professor of Computer and Information Sciences, and her research group led the September 2016 session of the HPC Symposium series. During her presentation, Chandrasekaran discussed how she uses her nodes on the Farber HPC cluster to understand state-of-the-art hardware,

explore compilation techniques, run applications faster, and learn to use new evaluation metrics. The session ended with a discussion about the merits of OpenACC and OpenMP and plans for the new HPC cluster.

- **February 2017:** The first [2017 High Performance Computing Symposium session](#) will be at the Faculty Commons on Wednesday, Feb. 22 at 10:00 a.m. The event will kick off with a presentation by the [Janotti Research Group](#) followed by an hour-long open forum for attendees to ask questions and share ideas. ([Register](#))
- **Schedule and format change:** The HPC team is changing the format of the HPC Symposium series. Meetings will now occur on the fourth Wednesday of February, June, and September. In addition, the June symposium will now be a poster session for research groups to highlight their current research and how they are using cluster computing locally or nationally.

The symposium series is designed for researchers using or interested in using the University's [HPC clusters](#). Those interested in presenting at a future HPC Symposium should contact it-hpc-interest@udel.edu.

GIS events

- **GIS Day** provides an international forum for Geographic Information Systems (GIS) users to demonstrate real-world applications that are making a difference in society. Nov. 16, the University Library, IT-CS&S, Department of Geography, Department of History, Delaware Geological Survey, Disaster Research Center, and Water Resources Center collaborated to celebrate GIS Day on campus. The UD event consisted of a series of [ten-minute presentations](#) that covered topics from how GIS is used to help make decisions regarding traffic patterns to visualizing plant invasion pressures on local forests. The event concluded with a poster session of UD GIS-related research.
- IT-CS&S collaborated with the University Library to host hosted training in the widely used **ArcGIS** software: [Getting Started with ArcGIS Online](#) on Oct. 25, and [Getting Started with ArcGIS for Desktop](#) on Nov. 1. IT-CS&S also provided a training session at the 2017 Winter Faculty Institute on “An Introduction to GIS tools for the classroom.”
- IT-CS&S continues to host the **UD GIS Coffee Hour** for GIS users from UD and the surrounding community. In October, Naomi Bates from the Delaware Geological Survey presented “Delaware LiDAR Data, Derivatives, and Applications.” In December, Lillian Wang from the Delaware Geological Survey presented “[Geologic Field Mapping in Delaware—Paper Maps to ESRI Collector App](#).”

Teaching and Learning

Course evaluation reports and UDAcademe

IT Web Development (IT-WD) worked with Institutional Research to create an automated process for providing student course evaluation reports in [UDAcademe](#). *UDAcademe* is a cloud-based, third-party portal supplied by Faculty180 that aims to centralize a wide variety of faculty accomplishments and activities in a single location.

The automated process provides two different reports of student responses in order to give faculty maximum flexibility. The first report is a PDF document that aggregates student responses to an evaluation and includes statistical measures such as mean, mode, and standard deviation. The second type of report is a spreadsheet that enumerates the individual, anonymous written responses of every respondent.

This enhancement is especially important for faculty members who are preparing their dossiers for promotions and tenure or who are completing their faculty appraisals. Course evaluations reports will also remain available and secured in UD's course evaluation application. For more information, see the *UDAcademe* website at udel.edu/academe.

Over 150 faculty attend 2017 Winter Faculty Institute

Over 150 faculty, graduate students, and staff participated in the 2017 Winter Faculty Institute (WFI) on Jan. 9 and 10, 2017. This year's WFI used the theme "Inclusion. Engagement. Transformation... by Design" to focus on course design for both faculty in the process of creating new courses or redesigning existing ones.

Michele DiPietro, co-author of *How Learning Works: 7 Research-Based Principles for Smart Teaching*, opened the event with an interactive workshop. Participants in the "Hands-on Course Design Intensive" track focused on course design activities in one workshop across the two days. Those who participated in the "Topics in Course Design" track sampled among sessions that addressed course design from different UD faculty and staff perspectives. The program also included sessions to introduce graduate students and post-docs to the Center for the Integration of Research, Teaching, and Learning (CIRTL) at UD. Recordings of several WFI sessions are available via [UD Capture](#).

Faculty: Sign-up for UD Capture for your spring courses

Since 2009, faculty members have taken advantage of UD Capture, UD's classroom recording service, available in all centrally scheduled classrooms upon request. UD faculty members are encouraged to sign up for UD Capture classroom recording service by noon, Friday, Feb. 3 to ensure that the first day of their spring courses is recorded. All late requests are honored but may be delayed.

UD Capture is a free service that records the projected visuals from a laptop or document camera along with the audio from the room to easily record classroom presentations and discussions for faculty and students to review after class.

Faculty can check online to see if [UD Capture is available in their scheduled class location](#), and then use the [UD Capture registration form](#) to sign up for the service.

Business Systems

Secure business controls

In support of National Institute of Standards and Technology (NIST) guidelines, IT has improved several HR, payroll, and student financial processes with security practices that help inform originators and assist approvers in their decisions. Personally identifiable information (PII) has been masked or removed, fraud indicators that flag suspicious activity to approvers have been added, and email notifications have been expanded. On Feb. 20, students and staff will be required to use 2FA to access these forms.

PINs being retired

The University is no longer supporting the creation of PINs. Since September 2016, University staff and students who create their account through Quick Bio are now creating passwords instead of PINs. Using a strong password protects your account by slowing down and often defeating hackers. Strong passwords created in [compliance with UD policy](#) are less vulnerable to brute-force and dictionary attacks than PINs are. If you use a PIN, [retire it](#).

2FA communication methods

2FA has additional benefits beyond safeguarding your UD account and information. The communication methods you provide when registering for 2FA can also be used to help you reset your password or to update communication methods you might have stored in UDSIS, if you are a student, or on your Employee Demographic Data form (EDD), if you are an employee. Enroll in 2FA at [My UD Settings](#).

Make a gift form enhanced

IT-WD partnered with Development and Alumni Relations (DAR) to make the Make a Gift form more user-friendly. The forms now use Bootstrap, a mobile-first framework, to improve the aesthetics and usability across all platforms. In addition, a field for “Address type” was added to the form, the validation was improved to make it easier for users to identify required fields, and the email receipt was updated to a more modern template.

New functionality added to the Equipment Activity Web Form

Accurate record-keeping, including up-to-date asset tracking, is crucial for UD business processes, audits, and compliance with federal laws and regulations. In partnership with Asset Management, General Accounting, and Procurement, IT-WD has added new features to the Equipment Activity Web Forms.

- **Return of off-campus equipment:** A return to campus Equipment Activity Web Form is now automatically generated when tagged equipment that was moved off-campus is not returned on the date promised. This automation allows the department who transferred the equipment off-campus to be notified and take action more promptly.
- **Sold equipment:** The University tracks sales of serviceable equipment to entities outside the University. The Equipment Activity Sold Web Form now includes a “Cash Transmittal” field that allows a department to link this form with the Cash Transmittal Web Form. The department selling the equipment therefore has more in-depth information about the transaction.

Vendor Payment Request Web Form enhanced

Working with several key stakeholders, Procurement and IT-WD recently deployed a new Vendor Payment Request Web Form. The refreshed Web Form uses responsive design so it can be used on any device. It also includes the common Chartfield String component to facilitate standard validation of University financial information. The new form also gives administrators the ability to add notes and attachments to the routing section of the form.

Form changes required by Fair Labor Standards Act (FLSA)

IT-WD and IT Management Information Services (IT-MIS) completed modifications to UD forms and applications mandated by the changes to the Fair Labor Standards Act (FLSA). (For more details, see the [FLSA information](#) provided by HR.) The following Web Forms were among those affected by FLSA: S-Contract, S-Contract Amendment, JED, and some financial applications.

Financial Systems update

UDataGlance: The Controller’s Office and IT-WD have added student term information related to student billing in UDataGlance. This information is displayed on the transactions page in the “Supplemental Information” column. Work Order information is also in this column. Additionally, when detailed information is downloaded from this page, the descriptions of term and work order are now visible.

Proposal Approval form: As requested by form users, the Proposal Approval form now provides an automatic copy of the final approved form to representatives of colleges and units.

This change, implemented by the Research Office and IT-WD, will facilitate consistent notification of the finalization of proposal approval.

Grants Budget Revision Form: The Research Office and IT changed the routing to the Grants Budget Revision form as a result of enhanced focus of **OMB Uniform Guidance** on internal controls. Effective Nov. 1, 2016, the routing of all FIN Budget Revision - Contracts and Grants Web Forms involving federal or federal flow-through awards automatically route to the Research Office for review and approval.

PeopleSoft update: IT-MIS applied PeopleSoft Financials & Supply chain bundles 37 and 38 to the Financials production database in November 2016.

General Ledger: IT-MIS has enhanced the General Ledger's Data Integrity report to produce two new detailed reports with transaction details of balances, which helps the Controller's Office and Procurement Services correct those discrepancies. IT-MIS also enhanced the General Ledger data scrub process to avoid the double scrub of accrual/reversal JV's that are assigned the same "journal_id" and to extend the date range for scrubbing data.

Grant awards and UD Advance: IT-MIS created a view of grants awards and project budget details for DAR. DAR will use the data in the Advance system.

Controller's Office: IT-MIS developed a new report for the Controller's Office to compare current period balances data with current period transaction details, helping them reconcile the transactions posted to the ledger.

IRS form 1099 reporting: In December 2016, IT-MIS applied Oracle updates for Accounts Payable 1099 reporting for the year 2016. Procurement Services completed processing 1099 forms and sent them to vendors last month.

New PeopleSoft Treasury module: The University Cashier's Office and IT-MIS partnered with a vendor, Opening Insight Global (OIG), to implement the PeopleSoft Cash Management (Treasury module). The project began in December and is expected to go live in April. This new module will help the Cashier's Office enhance their business processes by forecasting and positioning cash, reviewing online fund transfers, automatically reconciling bank statements, and automating the integration of other banking functions and reports.

Asset Management: IT-MIS has enhanced the Purchasing to Asset Management interface to bring equipment data from requisitions into the Asset Management system automatically, thereby reducing manual effort and potential errors.

My UD Business: new task announcements feature

Announcements have been implemented on My UD Business. My UD Business enables staff, students, or parents/guardians to search over 700 forms and applications to locate what they

need to do UD business. This new feature gives business owners the opportunity to add important announcements to their tasks for a specific period of time. Once the announcement is connected to a task, the task tile will display a red badge icon indicating the number of announcements. When the badge is clicked on a mobile device, the announcement will display; on a computer, the user can click the information icon and the Announcements tab to view the announcement. This feature introduces another way to help users get essential information in a timely manner. To see an example, go to [My UD Business](#) and search for “2FA.” Business owners may submit their announcement using the form available on the My UD Business Help page.

IT-MIS Student Information Systems updates

AIM data feed: IT-MIS worked with the Registrar’s Office to develop and implement a new set of interface extract files to send data to the third-party database (Accessible Information Management [AIM]) used by the UD Office of Disability Support Services to facilitate communication with faculty.

EAB extracts: IT-MIS worked with the Registrar’s Office to develop and implement a set of interface extract files for the Blue Hen Success collaborative project. Phase I went live in fall 2016. Work on phase II is in progress.

SLATE graduate admissions processing: IT-MIS worked with the Office of Graduate and Professional Education to develop and implement new interfaces to import data from Slate to UDSIS for graduate applicants. The project went live in fall 2016.

New data extracts: Work has started on a new set of interface extract files from UDSIS to the Destiny Solutions system that will replace the current UD Online registration system. Work is also in progress to extract data from UDSIS into a new system, Terra Dotta. UD’s Office for International Students and Scholars will use Terra Dotta to process Federal Student & Exchange Visitor Information System data. Both projects are planned to go live in spring 2017.

My Finances infrastructure improved

IT-WD partnered with Student Financial Services to add significant changes to My Finances. My Finances is used by students and parents to make tuition and flex payments and serves as a one-stop shop for viewing account activity, 1098T, and financial aid information. The new version of My Finances has improved security and architecture. In addition, the pages are styled with responsive design, allowing them to be accessible from most mobile devices.

Database administration activity

PeopleSoft and Oracle database software upgrade: The HR PeopleSoft and PeopleSoft Tools software is in the process of being upgraded. In conjunction with the upgrade, the Oracle databases associated with HR are also being upgraded to Oracle 12c, and relevant security patches are being applied. The project is in the testing phase with changes in the production environment to be implemented in spring 2017.

New database hardware changes: Selected databases continue to be moved to the new Oracle Supercluster hardware and software: The PeopleSoft Student and Financial demo, test, and quality assurance (QA) databases, and the development and test databases for the Web Forms system have been moved to the Supercluster. So far the databases have been functioning properly and efficiently. The production databases for these applications are projected to be moved to the Supercluster during the first half of 2017.

Work also continues on the transition to the new backup and recovery strategy using an Oracle Zero Data Loss Recovery Appliance (ZDLRA). This project is being implemented in tandem with the Supercluster project.

The Supercluster and the ZDLRA have also allowed for faster processing of data by the test and QA instances of the databases and for more efficient interactions with backup instances of the databases.

Event Production and Media Services

Three units within IT University Media Services (IT-UMS), Performances & Events, Video Production, and Media Engineering & Design, collaborated to support three major events on campus during fall 2016.

- IT-UMS created the set design, staging, lighting, and venue operation for the Gubernatorial and House of Representatives debates in October. IT-UMS also produced the multi-camera I-mag, live streaming, and press feeds for the event.
- In December, IT-UMS created the lighting and technical design for the Inauguration of President Dennis Assanis, held in the Roselle Center for the Arts and attended by former Vice President Joe Biden. IT-UMS staff also performed venue technical operations including audio, projection, staging changes, and image rolls for the event. IT-UMS Video Production collaborated with the Office of Communication and Marketing to produce the highlight video shown during the event. Our staff also provided a live multi-camera stream and press feeds for the inauguration and the following symposium series.
- IT-UMS provided stage and lighting design, technical operations, live video stream, and press feeds for the announcement by the US Secretary of Commerce of the National Institute for Innovation in Manufacturing Biopharmaceuticals (NIMBL). NIMBL will be headquartered at the University of Delaware.

Personnel

Shawn Cosgrove, an IT security analyst I, became a member of the IT Security Policy & Compliance group in IT Network and Systems Services (IT-NSS) in November. Shawn comes to the University after working in the financial industry as a systems and data security analyst for several years. He will assess risks to University information assets and implement appropriate administrative, technical and physical controls to comply with laws, regulations, funding agency requirements, and security policies.

Aletia Morgan joined the University in October as an institutional data manager. Reporting to the vice president for Research, Scholarship and Innovation, her position bridges the Research Office and IT Security Policy & Compliance. Aletia is housed in the UD Computing Center where she works closely with the IT-NSS group to support campus data standards and research data management. Aletia has over 18 years of experience working in the technology and data management areas of higher education and most recently was the research data manager at Rutgers University.

Pradeep Polavarapu joined IT-MIS in the HR systems group as an applications programmer II in November. His main responsibility is supporting the HR Administrative systems. Pradeep recently graduated with a Master's of Science in Electrical Engineering and has several years of experience working as a programmer supporting PeopleSoft HR systems.

Joseph Rapposelli, an educational technology consultant II, started working in IT-ATS in November. Joseph brings to UD his many years of experience working with education technology in the K-12 and higher education learning environments. Joe's position is shared with the College of Education and Human Development. He is consulting with and supporting faculty as they use technology to enhance their teaching and their students' learning.

The IT Activity Report is published 3-5 times a year. Archived reports are located at <http://www.udel.edu/it/activity-reports/>. If you have comments, questions, or suggestions for future articles, contact the IT Communication Group at it-commgroup@udel.edu.