Information Technologies Activity Report
September 2015 – January 2016

Carl Jacobson, VP for IT, retires after 38 years at UD

On Dec. 31, 2015, Carl Jacobson, vice president for Information Technologies and the University's chief information officer (CIO), retired from the University of Delaware after a 38-year career that included stints as a programmer, associate director of Management Information Services (MIS), and director of MIS. Jacobson was named vice president in March 2009 after being appointed interim vice president in June 2008.

Jacobson has been an outspoken advocate of re-thinking the roles of the Web and e-business, providing new opportunities to support teaching and research, revamping business practices, and improving customer service.

His ability to understand both the big picture and the details of how IT can help a university's business processes was recognized by colleagues on and off campus. In 2001, Jacobson received the prestigious Leadership in Information Technology Award from EDUCAUSE. He was hailed as a pioneer for using the Web to provide access to institutional administrative information and for his work to enable students, faculty, and staff to conduct University business online. In fact, under his leadership, IT developed Web interfaces for some business functions ahead of those later developed by vendors such as PeopleSoft and Bank of America.

He also received an EDUCAUSE Catalyst Award in 2007 and UD Innovation Awards in 2001 and 2002.

Jacobson has played a key role in improving the information security posture of the University. He has spearheaded UD IT's collaboration with deans, executive leadership, administrative staff, departmental and college IT staff, and faculty to improve the hardware and software controls in place and increase the information security training available for all employees. Under his leadership, in 2015, UD became one of the first two universities to partner with the US Department of Homeland Security on evaluating the security of its IT resources.

In addition to his work at UD, Jacobson is a consultant, a writer, and a frequent speaker at national and regional computing conferences.

While still in high school, Jacobson began working for UD as a dishwasher in the Rodney Dining Hall. He later earned a bachelor's degree in mathematics at the University of Delaware in 1973. He and his wife, Lynn, are "Double Dels," having met while both were UD undergraduates.

While working in MIS, Jacobson started teaching a karate class at Carpenter Sports Building. It meant an extra way to take the pulse of students. The student newspaper, *The Review*, ran an article about "the lithe Jacobson" and his combined karate and computing expertise.

Everyone in IT invites readers of the Activity Report to join in wishing the still lithe Jacobson well on his retirement.

Jason Cash named acting vice president for IT

Jason Cash, deputy CIO for IT Network and Systems Services (IT-NSS), has been serving as interim vice president for IT since Jan. 1, 2016.

Cash earned a bachelor's degree in Computer Science from UD in 1994. Since 1997, he has worked in UD IT in a variety of capacities, including systems programmer, systems manager, associate director of Network and Systems Services, and director of IT Infrastructure.

Before joining UD, he worked for a software development company and did network and graphical user interface programming.

Introducing Blue Print 3D Studio

UD IT and Faculty Commons have launched Blue Print 3D Studio, UD's first full-fledged 3D printing center open to the campus community. Any student, faculty, or staff member—regardless of their department, major, or class affiliation—are welcome to submit STL build files or request personal consultations about the design process. The service is free for a limited time.

Blue Print was officially announced on October 28 during the IT Tech Fair. Since then, it has been supporting faculty and students working on curriculum-related projects. Any member of the UD community is welcome to submit personal prints beginning February 8.

The Studio, located in the basement of Smith Hall, features two CubePro Duo printers, three Cube printers, and one Micro printer. It is also equipped with an iSense 3-D scanner, which turns photos into STL files, and a Touch 3-D stylus, which allows designers to create files by "feeling" the screen. Blue Print's workforce largely consists of student employees trained in STL file management and 3D printing technology.

Jon Cox, assistant professor in the Department of Art, and Dustyn Roberts, assistant professor in Mechanical Engineering, spearheaded the initiative after being awarded a 2015 Transformation Grant. They used the grant to achieve their vision of providing accessible 3D printing opportunities on campus.

Planned Outages

UDSIS patching: March 12, 2016

UDSIS will be updated with the next batch of patches and fixes on March 12. The system is expected to be unavailable all day.

Information Security

Tax scam season is open: YOU are the target

Every year, people fall victim to one of the growing number of scams that circulate during tax season. The Internal Revenue Service (IRS) and UD IT urge you to be vigilant and not fall for email, website, or telephone scams.

Important points to remember:

- The IRS will **never** call or email you with information about your W2, tax refund, or delinquent taxes.

- The IRS will **never** call or email you to request more information about your tax return or to "confirm" your refund information.

- The University of Delaware will **never** email you a link to your W2 information.

- Do not reply to any email with confidential information such as your Social Security number (SSN), bank account number, or bank routing number.

- Do not provide confidential information such as your SSN, bank account number, or bank routing number to anyone who calls you on the telephone.

The following resources can help you learn more so that you can stay safe this tax season:

- Monitor the IRS website for information about known scams. Go to www.irs.gov and click the **Alert: Tax Scams** tab.

- Review the series of security awareness tax tips that the IRS is issuing. These tips cover technology, record keeping, Internet scams, and other important topics.

- Review the Secure UD Threat Alert posts about tax scams. IT has already published its first tax scam warning of 2016 to the Secure UD Threat Alerts blog.

- See this April 2015 UDaily article to learn about a form of identity theft in which a criminal uses your SSN to file a tax return before you do.

New server, udapps, replaces chico and primus

In January, IT-NSS retired the chico and primus servers and moved all applications to the new, more secure udapps server. Departments must update Web pages or forms to point to udapps

- if the Web pages link to chico or primus

- if the forms use an IT service such as the Mailto program or the Forms Data Processor (FDP) on chico or primus.

When possible, owners should use redirects to their forms to avoid future updates when severs change. Form owners using the Mailto program should refer to the Mailto program migration section of the udapps help page for additional information and instructions.

Before the change, IT Web Development (IT-WD) staff notified many form owners. However, there may be some Mailto forms still pointing to chico or primus. Questions may be sent to the IT Support Center.

Google Apps at UD now using CAS

The University continues to expand its implementation of two-factor authentication (2FA) to increase security when accessing certain sources of confidential information. On January 3, 2016, IT moved Google Apps behind CAS to benefit from the security provided by 2FA. Clients can now use 2FA when logging in to Google Mail, Google Docs, and other UD Google services. Questions on this process may be sent to the IT Support Center.

Phishing test

UD IT will be conducting a second phishing test in the near future as a follow-up to the phishing tests conducted through the University's June 2015 partnership with the Department of Homeland Security. UD IT is using this test to further the campus community's education about the ever-present phishing threat.

All members of the University community are urged to exercise caution when using email. Phishing attacks are one of the most common and effective methods hackers use to infiltrate an organization.

Once the phishing test is complete, annotated copies of the test emails will be posted to the Secure UD Threat Alerts blog.

As always, IT professionals are encouraged to remind their constituents of the best practices for identifying and avoiding phishing scams and of the Secure UD Threat Alerts blog, which provides annotated copies of phishing emails received by UD employees as well as tips for avoiding phishing scams.

Secure UD training reset

Secure UD training, introduced in 2014, is the University of Delaware's information security awareness training program. It's a modular, online, self-paced program that equips faculty, staff, and other employees with the knowledge and best practices they need to identify and defend against threats to personal and University data and systems.

The 2016 Secure UD training relaunch will start on Feb. 1. This year's training is being rolled out using a phased approach; the training modules will be released in three separate batches:

- The first set is available immediately.
- The second set will be released in April 2016.
- The third set will be released in September 2016.

The benefit of this approach is that it reduces the training time and the number of modules required at any one time. In addition, it reminds employees of the importance of cyber security year-round. Each set will contain seven to eight modules and take approximately 20 minutes to complete.

Employees are encouraged to complete training as it becomes available. To log in to your Secure UD training virtual learning environment, visit the Secure UD training Web site.

As part of the relaunch process, faculty and staff who are enrolled in training will receive an automated email from noreply@securingthehuman.org confirming their enrollment. This email is not part of the University's planned winter phishing test.

KACE classes for departmental IT professionals

In late January 2016, IT staff began offering an eight-session training series for departmental IT professionals to help them configure KACE. This desktop management software protects faculty and employee computers and the information stored on them. KACE appliances allow system administrators to deploy and manage systems remotely, making their tasks easier while also allowing for improved security management of a unit's computers. The University has purchased a 15,000-seat license for KACE management software, and UD IT is offering to set up KACE tenants for individual departments, colleges, or other units at no charge. For more information, contact the IT Support Center.

Infrastructure

Wi-Fi updates continue

IT staff completed an evaluation of the wireless service in all 182 centrally scheduled Newark campus classrooms in fall 2015. As a result, 174 of the classrooms had upgraded wireless access points (WAPs) installed that provide 33-50% more bandwidth. The new WAPs also extend wireless signals further and with greater strength than the previous generation of WAPs. In spite of the campus network showing peak usage of over 40,000 wireless devices, the new WAPs helped reduce the number of classroom wireless IT Support Center incidents to almost zero.

Due to network design and construction challenges, seven of the remaining eight classrooms received additional WAPs in January. The eighth classroom's upgrade should be completed before the start of the spring 2016 semester.

In 2016, IT hopes to expand this program into larger meeting and conference rooms around campus. For example, upgrades have already been installed in the Perkins Student Center (Rodney Room and Perkins Gallery).

Research Support

Mills end of life: Cluster planning

The Mills High-Performance Computing (HPC) community cluster has entered its fifth and final year of service. The Mills cluster research community has been notified that the final year has begun and that arrangements need to be made for new computing resources starting in 2017. Mills cluster research groups will need to find permanent storage for data that needs to be retained beyond early 2017.

IT-NSS is unable to secure hardware support for Mills' final year. Minor changes will be made to the cluster's scheduling software that are expected to keep the cluster functional through the end of the 2016 calendar year. NSS will begin to dismantle the Mills cluster in 2017.

The IT-Research Computing group is starting the process of designing the next UD community cluster. The process involves reviewing the effectiveness of the current cluster designs, considering researcher needs, and considering newer available technologies. Anyone wishing to become a stakeholder in the

next UD community cluster should contact Anita Schwartz. More information can be found on the Research Computing site.

HPC Symposium Series

In January 2016, IT-Research Computing hosted an HPC Symposium with Arthi Jayaraman, associate professor of Chemical and Biomolecular Engineering, and her research group. The presentation covered how they use UD's HPC clusters to design polymers that are used in materials like solar cells, tires, and therapeutic DNA delivery. Specifically, they discussed how they employ GPU computing to handle the molecular dynamics simulations and how they implement OpenMP and OpenMPI on the cluster to maximize efficiency when using the clusters.

Upcoming presenters include Dana Veron on February 24 and the Neunuebel Neuroscience Lab on June 22. Registration for these presentations is available at the Research Computing website.

Teaching and Learning

Winter Faculty Institute

Over 130 participants attended UD's three-day Winter Faculty Institute series titled "PBL Classic. PBL New." from Jan. 6 to Jan. 8, 2016.

The series was designed to help faculty implement problem-based learning (PBL) approaches that best match their teaching goals and subject areas.

Participants enjoyed this combination of the annual Winter Faculty Institute and UD's problem-based learning workshops. These workshops are representative of UD's foundational work in PBL dating back to the 1990s, leading to UD PBL workshops being offered at other colleges around the world.

As the title suggests, the institute was divided into two tracks: PBL Classic and PBL New. Participants attended whichever track matched their PBL experience. "PBL Classic" provided an overview of introductory PBL techniques for those who were unfamiliar with problem-based learning. Teachers with experience implementing PBL in their classrooms benefited from the discussion of advanced techniques in the "PBL New" track.

Faculty interested in sharing their PBL techniques are encouraged contact Faculty Commons to lead a session for the Summer Faculty Institute, May 31 to June 3, 2016.

Blended Learning and Seamless Teaching (BLAST) course design institute

Throughout January 2016, Faculty Commons hosted a blended learning institute designed to help faculty transition from in-person classes to hybrid or blended courses. A blended course has a significant portion of the learning activities online. BLAST offered a situated experience where participants gained the perspective of both the online instructor and the student. Participants developed challenging and engaging online learning activities to complement the face-to-face portion of their courses.

New user interface for Canvas@UD deployed

Canvas@UD was upgraded to a new user interface on January 4, 2016, just in time for the winter 2016 term. Notable changes include "cards" on the new dashboard and the main menu moving from the top to the left of the screen.

According to Instructure (the vendor hosting Canvas@UD), these changes make the desktop and mobile interfaces more in line, providing a seamless user experience across devices. This new interface also provides more screen real estate for course content by removing the top menus, reducing the need to scroll on larger monitors.

To learn more about the new interface, consult this Canvas@UD blog post.

Business Systems

Slate implementation for UD Admissions

In 2015, Admissions began configuring a Slate Technologies' system for use by prospective and incoming UD students. IT-WD worked with Admissions and other departments to provide UD authentication, data views, and deposit payments for incoming undergraduate students. IT established a "handshake" between Slate and UDSIS so that student views—such as Student Financial Services' Financial Aid view, Registrar's Office Transfer Credit view, or the Mathematical Sciences Learning Lab Math Placement test—could be securely shared with incoming students.

Other Slate interfaces with existing UD systems allow student deposits to be collected in CashNet, UD's secure payment processor, and enable students who accepted admission to go through IT's authentication process and then access systems such as Housing and Dining. Once student data is exported from Slate to UDSIS, the Registrar's Office can matriculate and activate students so they can enroll for classes.

The rollout of Slate services will continue into 2016. Questions on the Slate implementation should be addressed to Admissions.

Transfer credit evaluation available in Slate

With the migration from Blue Hen Home to Slate, the Preliminary Transfer Credit Evaluation was turned into a standalone application that prospective students are now able to access from within the Slate portal. The Preliminary Transfer Credit Evaluation allows prospective students to view how their advanced placement test scores, and credits from other colleges and universities, are likely to transfer to UD. IT-WD worked with Admissions on the Slate interface and with the Registrar's Office on the view.

Diploma validation

In cooperation with the Registrar's Office and Paradigm, IT unveiled a new service to validate the authenticity of University of Delaware's Certified Electronic Diplomas. Known as the CeDiploma Trust Store, graduates' prospective employers are able to verify the CeDiploma provided by Paradigm through the service. CeDiplomas are optional for students graduating in fall 2015 and beyond. All UD graduates are still issued a free paper diploma.

My Finances enhancements for prospective and current students

IT-WD and Student Financial Services enabled access for prospective and current students to the My Finances system's Financial Aid Award Notice. The Financial Aid Award Notice presents the description and amount of financial aid awards a student is being offered. This view was previously only available to students during the admission process, but is now available through My Finances for a students' entire career.

During this upgrade, My Finances was rewritten to interface with Slate.

Other UDSIS updates

- UDSIS was patched with the January round of patches and fixes from Oracle on Jan. 9. This round included the latest updates for SEVIS and Financial Aid.

- A new set of data extracts now sends data from UDSIS to the Faculty 180 system used for a pilot of faculty evaluations.

UD Financials update

The IT Management Information Systems (IT-MIS) group performed several PeopleSoft upgrades to enhance services and security.

- On Nov. 14, 2015, new Oracle and Solaris patches were applied to UD Financials.

- In November and December 2015, IT-MIS applied patches for Accounts Payable 1099 reporting for fiscal year 2015. At the same time, IT-MIS and Accounts Payable tested the consolidation of multiple vendor addresses. When the 1099 processes were run in production, the new consolidation process worked, cutting two to four days from the process.

- Accounts Payable checks were converted to XML Publisher processes in the fall. On Jan. 8, 2016, the new XML Templates were changed to show the signature of the Interim Executive Vice President (H. Alan Brangman) when the Executive Vice President (Scott Douglass) finished his service to the University.

- On Jan. 15-18, 2016, the Oracle database system was upgraded from 11 to 12c, and PeopleTools were upgraded from 8.51 to 8.54. Faced with the upgrades, Procurement was able to issue 1099 forms on Jan. 11, much earlier than usual.

- There are several automated feeds of data to the General Ledger from services administered by Auxiliary Services. One such interface was modified last fall to reflect a new format. Another for University Printing is under development, and is expected to go into operation this spring.

Database administration (DBA) update

- **Oracle Database Security – Software Patches**
  The DBA team has continued to apply the latest security software patches to the PeopleSoft and Web Forms Oracle databases, as well as the operating system software for all production and test database servers.

- **PeopleSoft and Oracle Database Software Upgrade**
  In conjunction with the PeopleSoft Tools software upgrade, the DBA team has been upgrading

the Oracle Database software from version 11g to the latest release, Oracle 12c. The PeopleSoft Campus Solutions modules have been upgraded for both the test and production platforms. The databases for these platforms have been upgraded to Oracle 12c.

- **New Database Hardware Changes**
  The DBA team is working with IT-NSS to test and implement two major changes to our database server hardware configuration. One is the use of the Zero Data Loss Recovery Appliance (ZDLRA). This device is specifically designed for database backups. It uses Oracle's Exadata storage and processing technology and allows for virtual daily backups of data. Static data that has already been backed up is then merged with the new daily data. This process facilitates faster and smaller backup processing windows and reduces resource contention on the actual database servers. Testing of this new hardware and backup methodology is taking place now. The plan is to have all of production backups using the ZDLRA later in 2016.

  The second major, and even more critical hardware change, is the use of Oracle's Supercluster database server. This device uses storage technology similar to that currently in use; however, it will eventually store and manage all of UD's Oracle databases, as well some of the application software that uses those databases. The move to the Supercluster includes a database software configuration change that provides redundancy via the use of Oracle's Real Application Cluster (RAC) software. RAC contains mirrored instances of the databases that assist in providing high availability and a level of disaster recovery. Testing of the Supercluster is just beginning.

HR systems update

- Patches and tax updates were applied for the year-end processing and W2 printing.

- Affordable Care Act (ACA) patches were applied to keep UD in compliance with federal requirements.

- New data extracts were created to send HR data to the Faculty 180 system that will be used for faculty evaluations and tenure tracking.

- IT-MIS staff are in the process of working with payroll to prepare an upgrade to UD Time later in 2016.

- IT-MIS is working with HR to prepare for the PS/HR upgrade to PeopleSoft 9.2 later in 2016.

- Outages while the next PeopleSoft tax update is being installed will be announced after the testing of that update is complete.

Other business process improvements

Improvements to the Equipment Activity Web Form continue

In partnership with Asset Management and General Accounting, IT-WD developed new location change and asset creation options on the Equipment Activity Web Form.

- Temporary off-campus relocation: Submitted to move tagged (capital) equipment off-campus temporarily.

- Return off-campus equipment: Submitted to return to campus any equipment that was moved off-campus.

- Fabrications: Submitted to assign a tag to a new piece of equipment that was fabricated by UD and is valued over $5,000.

Additionally, the Equipment Activity Web Form was enhanced to automatically update the Asset Management system when equipment is disposed. This automation is a significant improvement to the efficiency of the equipment disposal process, as well as the timeliness and accuracy of record keeping. Up-to-date asset records are crucial for UD business processes, audits, and compliance.

Journal Voucher explanation field enhancements

Preparation of journal vouchers often requires detailed explanations, with data entered both by typing text and copying and pasting text from a spreadsheet or document. Recently a change was made in the TinyMCE editor used to enter explanations on the JV form in response to several clients' requests. The collaborative efforts of General Accounting and IT-WD staff resulted in achieving this user-requested improvement. Specifically, a new "paste as text" function allows for easier insertion and editing of Excel information copied and added to an explanation with existing text.

UDataGlance Proposal Submission Date

IT-WD and the Research Office have added Proposal Submission Date to the information available on the Proposal Tab in UDataGlance. This addition was requested by a UDataGlance client who needed to report what proposals have been submitted over a period of time. This additional information has enhanced and streamlined Research Activity reporting in departments across the campus. Feedback on UDataGlance may be submitted using the Feedback form available within the application.

New accounting shortcuts application released

General Accounting and IT-WD recently released a new version of the My Accounting Shortcuts application. Accounting shortcuts (previously called "nicknames") can be set up by individuals as a convenient alternative to constantly re-entering frequently used chartfield information. The new application uses our improved method of gathering chartfield information, dubbed the "CFS Component". All nicknames in the old version of this application were upgraded to the new format. Users may create new accounting shortcuts, or view or edit their existing shortcuts, by logging into Web Forms and clicking the My Accounting Shortcuts link, or by logging in to My Accounting Shortcuts directly. For further information, contact General Accounting.

Improved Web Forms

New and updated Web Forms have been released as the result of the collaboration between the form owners, General Accounting, and IT-WD. The new forms use responsive design, allowing them to be used effectively on any device. The forms also incorporate our new method of gathering chartfield information (the CFS Component) which continues to be implemented throughout UD forms and applications. The following forms were released with these changes this quarter:

- Request for Service - Environmental Health and Safety

- Request for Service - Academic Technology Services.

Web Application Upgrades

IT-WD continues to rewrite existing applications with both security and modernization in mind. For the applications listed below, the code has been migrated to a sophisticated and mature infrastructure and the user experience updated to reflect a more modern and responsive design.

- Effort Certification
- UDeposit
- Course Inventory.

New Vendor Payment Web Form

Procurement and IT-WD, working in conjunction with several key stakeholders, have recently deployed a new Vendor Payment Request Web Form. The form uses responsive design in order to optimize the functionality across devices. In addition, the form utilizes the chartfield component bringing it in line with other forms that handle University financial information. To further improve efficiency, the Requisition/Vendor Payment Request Web Form was split into two individual forms: PO Requisition and Vendor Payment Request. The PO Requisition Web Form is used when a unit requests that Procurement make a purchase or when a unit inadvertently made a purchase greater than $5,000 requiring a PO per Procurement Policy 5-1. The Vendor Payment Request Web Form is used to pay any invoice under $5,000 to vendors that do not accept credit cards. This form will route directly to Accounts Payable. Questions about these forms may be addressed to Procurement Services at (302) 831-2161.

Honors Degree Candidacy Web Form

A new Honors Degree Candidacy Form, developed by IT-WD in collaboration with the Registrar's Office and Honors Program, allows students to declare interest in pursuing an Honors Degree and update a student's records in a timely manner. Using the new form, students can view honors degree requirements within the degree audit and see how coursework is being applied to those requirements. The form reduces errors since it pulls data directly from UDSIS rather than requiring data be entered on a paper form. In addition, upon approval, a note is posted to students' advisement records to inform advisors of a student's intent. The Honors Program is sharing this new process and form with Deans in UD's Associate in Arts program. Questions may be sent to the Honors Program.

Event Production and Media Services

IT-UMS/Performances & Events recently upgraded the LED lighting in the Pearson Hall Auditorium. University Media Services (IT-UMS) installed 15 new ETC COLORSOURCE PAR lighting instruments that replaced 45 older models. These new LED PAR lights provide full spectrum color mixing and draw a combined 720 watts of power. The 45 compact halogen lamps that were replaced drew a combined 32,250 watts.

In addition to the LED PAR lights, IT-UMS also upgraded the control system to a state of the art ETC ION light board and installed two LED moving head instruments. These updates allow Pearson Hall Auditorium to utilize some of the most current and advanced performance lighting technologies.

IT-UMS/Classroom Technology has completed the A/V system upgrades to 23 rooms in Gore Hall. These upgrades replaced the old analog projection, control, and sound systems with state of the art digital systems that are capable of handling full HD resolution. These rooms also received Wolf Vision digital document cameras and Blu-Ray players to replace the outdated overhead projectors and DVD/VCR players.

This project is part of an ongoing six-year rotation plan to upgrade all centrally scheduled classrooms.

Personnel

Henry "Hank" Brodlo became a member of the IT-MIS Financials group in October. He is an Applications Programmer III and supports the University's Finance system in these areas: grants, general accounting, accounts payable, accounts receivable, budget, and procurement. Hank previously worked on contract for MIS beginning January 2015 and has 35 years of experience working as a programmer analyst in the private sector.

In December, **Srinivasa "Vasu" Garlapati** joined IT-MIS as an Associate Director in the Financials Group. Vasu has over 21 years of techno/functional and technical lead experience in the ERP environment and over 17 years of experience with implementing, administrating and customizing PeopleSoft applications. He worked as a contract employee for MIS for over 2 years prior to becoming a full-time employee at UD.

In January, **Paul Williams** joined IT Client Support & Services (IT-CS&S) as an IT Systems Support Consultant II. He will maintain and support department and site servers and provide second-tier support for central IT services such as Exchange, SharePoint, and Active Directory. Before coming to UD, Paul worked for several years managing the technology operations of a multi-campus K-12 school in Pennsylvania.

Jeremy Mahieu started working in IT-CS&S in November as a Technology Support Specialist I. He is working at the IT Support Center and provides first level support answering technology-related questions and analyzing clients' IT problems with a goal of "first call resolution". Jeremy previously worked part-time as an IT professional in IT-CS&S and in the Office of the Provost and worked as an independent contractor providing IT support in the healthcare industry.

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.