

# **Information Technologies Activity Report**

NOVEMBER 2011-JANUARY 2012

# Mills High Performance Computing Cluster

On Oct. 24, IT staff turned on the Mills cluster, UD's first high performance computing (HPC) community cluster, in the newly upgraded Chapel St. Computing Center. On Jan. 21, we released the Mills cluster to its faculty stakeholders and their research groups.

The HPC cluster serves the needs of computational research on campus and is named in honor of David L. Mills, UD professor emeritus and a pioneer of the early Internet and its precursor networks.

We developed and implemented the HPC Community Cluster Program in response to a proposal made by the faculty's Research Computing Task Force in April 2011. Penguin Computing assembled the Mills cluster, featuring 200 compute nodes with 5,136 processor cores, over 14 terabytes of memory, 172 terabytes of high performance (Lustre) disk space, and a (40GB/second) QDR Infiniband interconnect.

The cluster is funded collaboratively by University researchers and IT. Fifty faculty stakeholders from 19 different UD departments or centers purchased the compute nodes, and IT funded the storage, switch, maintenance, and physical and staff infrastructure. Each stakeholder has priority access to his or her own compute nodes, and collaborative job-scheduling also allows open access to unused cycles.

The week of Jan. 23, about 60 Mills users attended our four-day workshop series designed to acquaint and orient researchers with the new cluster environment. The workshops demonstrated efficient use of the serial and parallel computing environments on Mills. Recordings of these workshops are available on IT's Research Computing Web site.

We are installing software on Mills based on the applications researchers requested in our 2011 Cluster Software Survey. The cluster currently has two commercial and two open-source compiler suites, JDK, development tools, mathematical/statistical libraries, and a few application programs. Researchers can install their own software, and we will continue to install requested packages.

Mills is planned as the first in a series of HPC research clusters. We will survey faculty interest and solicit information about their support needs with a target of building additional clusters annually. Our target is to build and support a collaborative environment that meets increasing computational needs at UD and that exploits emerging HPC technologies.

For more information about UD's support of high performance research computing, visit our Research Computing Web site.

# Improved Access to NSF Grant Management Services

IT now offers a streamlined way University researchers can log in to NSF's Research.gov site for grant management services including FastLane.

NSF has partnered with the InCommon Federation to simplify how researchers access the information and services available at Research.gov. Because of the University's InCommon membership, principal investigators (PIs) and Co-PIs can now log in to Research.gov using their UDelNet IDs and passwords.

Before the availability of this single sign-on service, researchers had to use a hard-to-remember NSF login ID to log in to Research.gov. In addition, they had to log in to FastLane separately.

According to NSF, the new single sign-on will save researchers time because they won't have to enter multiple credentials. In addition, a standardized login will improve security.

View step-by-step instructions for logging in to the NSF site with your UDelNet credentials.

# 2011 Information Technologies Satisfaction Survey

For the past 3 years, IT has distributed a customer satisfaction survey to obtain campus feedback on central IT services. On Nov. 1, 2011, we sent an email announcement to all faculty and staff inviting them to complete this year's survey. The survey closed on Nov. 23.

Of the this year's 345 participants, 75 identified themselves as faculty (22%), 172 as professional staff (50%), and 98 as salaried staff (28%). 93% were full-time and 7% were part-time. We asked about respondent classifications to determine whether specific issues concern a particular constituent group.

In general, respondents expressed positive attitudes toward IT staff and the services that IT provides. We asked for feedback about our service to, support for, and communication with the campus. 82% of respondents said that their overall experience with IT staff was good or very good; 76% said that their overall experience with IT support was good or very good.

Finally, respondents were asked a series of open-ended questions to generate feedback about how we can improve our services to help the campus community work more effectively and about current services that people find valuable.

Respondents offered many helpful suggestions regarding IT services. In future activity reports, we'll tell you how we're acting on those suggestions. We thank everyone who responded to the survey.

# Infrastructure

### Accessing a UD printer from your own computer

We've recently published instructions for installing a printer driver on your own Windows or Macintosh computer so you can send files directly to a release station and print them at IT computing sites and printing kiosks.

IT computing sites located in the following buildings provide this printing service:

- Smith Hall,
- Pearson Hall, and
- McDowell Hall.

The service is also available at the five printing kiosks that IT supports located in the

- · Carpenter Sports Building,
- Christiana Commons,
- · Perkins Student Center,
- Rodney Commons, and
- Trabant University Center.

This printing service is another example of how we are adapting our services to meet our clients' needs: in this case, providing our mobile computing users with access to centrally supported printing.

# Teaching and Learning

#### Sending grades from Sakai@UD to UDSIS

This winter, the University Registrar and IT have been testing the process for moving final grades in Sakai@UD to UDSIS so that faculty do not need to manually re-enter the grades. The new process involves using a Web Form to capture the grades from Sakai@UD, present them to the faculty member for review, and then post them to UDSIS. A few faculty members volunteered to use this improved process this winter by using the Web Form to capture the grades from Sakai@UD. Over the spring term,

we will refine the process and will offer it to more faculty members for use. In addition to the Web Form, the process relies on the use of a new Gradebook tool in Sakai@UD. Direct questions about this new process to the University Registrar or the IT Support Center.

### UD Capture-There's still time to save time in class

A common sentiment we hear from faculty is "My students don't always 'get it' the first time I present it." Record, review, retain—that's the essence of classroom recording.

Many of your colleagues are saving class time by having their courses recorded through UD Capture. Over the past academic year, over 300 courses have been recorded. Visit the UD Capture Web site to see the variety of classes being recorded this semester.

And you can still sign up for spring. Go to the UD Capture Home page to request that your spring class be recorded and to learn more about the UD Capture system.

# **Business Systems**

#### New Parent/Guardian Services Web application

For the past two years, IT Web Development (IT-WD) has been working with a group of campus stakeholders to define and implement "Parent/Guardian Services," enabling students to share information with their parents and guardians. Students may choose to authorize parents and guardians to view items such as class schedules, grades, housing assignment, bills, and exam schedules. The team was cognizant of the need to preserve the protection of student information covered by FERPA: all sharing is student initiated and student managed. Once authorized by the campus stakeholders, this suite of applications, which is currently being tested, is expected to go live this spring. The Registrar's Office will lead outreach efforts to students, parents, and guardians.

IT thanks our collaborators in defining and developing this secure service: the Development Office, University's General Counsel Office, Housing Assignment Services, New Student Orientation Office, University Registrar, Student Financial Services, and Undergraduate Admissions.

#### **UD** Financials update

The update to the PeopleSoft Financials Application and People Tools is scheduled to go live on April 30, 2012. The application will be upgraded from version 8.9 to version 9.1; People Tools will be upgraded from version 8.48.04 to version 8.51. In December and January, our consultants from CedarCrestone arranged for several interactive demo and prototyping (IDP) sessions with IT Management Information Services (IT-MIS) and University financials users (General Accounting, Grants, Purchasing, and AR/Billing) to discuss the features and functionality the newer versions deliver. The current production Financials database and PeopleSoft software, as well as the new test environment, have been moved to new and faster hardware to streamline the upgrade process.

### Time and attendance project

The IT-MIS Database Administration team has been involved in the initial implementation and testing of a new time and attendance software product to more efficiently track and monitor time and attendance data at the University. We are now working on software and database issues to set up a test environment to allow a glimpse of how all the components will work together.

#### Extended use of virtual machines (VM)

The IT-MIS Database Administration team expanded our use of virtual machines, extending their use for the Intel-based PeopleSoft process schedulers used for submitting jobs and scheduled processes. They are also being used to study installation and use of new versions of Oracle products like Oracle Enterprise Manager and the latest version of the database management system for Cloud computing.

### Web Form for cancelling GSCRF, SFAF, and SACR forms now live

The Student Account Credit Form (SACR) and the Graduate Student Contract Form (GSCRF) with associated Student Funding Account Form (SFAF) have been available to campus users for some time. In mid-January, IT-WD, with the offices of Graduate and Professional Education and Student Financial Services, released Web Forms and background processes to facilitate the cancellation of these forms. The cancellation forms are automatically routed to appropriate approvers, and copies are sent to all involved with the original form. Associated course, billing, and financial changes due to a cancellation are automatically processed to reverse the previous transaction.

#### Amendments of student funding account forms (SFAF)

Occasionally the funding associated with an SFAF for a student needs to be changed. IT-WD and the Office of Graduate and Professional Education are currently in the early testing phase of a form that will facilitate funding changes on an existing SFAF, including reflecting the necessary changes automatically in the General Ledger. We plan to make this form available for campus use during the spring.

#### WebCredit payment processor retired

WebCredit, the University's online payment processing system since 2002, was officially retired as of Dec. 1, 2011. WebCredit will still be available for reporting purposes and refunds or adjustments, but not to process new payments. CASHNet® replaced WebCredit early last year.

Colleges and departments who wish to accept online payments should contact Sondra Holbrook-Wagner (sondra@udel.edu) in the Cashier's office for approval and cash-handling policies, including approval to use any third party registration and payment systems. For questions regarding CASHNet®, contact Maria Mullin (mullin@udel.edu), IT-WD.

### Faculty Appraisal form improvements

The online Faculty Appraisal and Planning Web Form has been in use for over five years. In support of the Provost's initiative for online faculty appraisals, IT conducted usability sessions that resulted in refinements and improvements to the language and routing of this form. The routing section, which generates most questions about the form, was enhanced to remove duplication caused by unexpected uses of the form. In addition, the team developed additional directions to ensure that those faculty members or reviewers completing the form knew which routing option to select. For help on using the form, see the Performance Appraisal information at the Provost's Web site, view the appraisal and planning sample forms, or use the "Contact us" form available on the form itself.

#### **UDSIS** update

UDSIS was patched the weekend of Jan. 14. Changes mainly impacted Financial Aid, Student Financials, and Admissions. The next round of patches is tentatively slated for mid-March.

### **Event Production and Media Services**

#### UD produces basketball broadcast for ESPN

The IT University Media Services (IT-UMS) Video Production unit provided complete video coverage of the UD vs. Towson men's basketball game on Jan. 23 for ESPN. The game was uplinked via satellite to ESPN, which carried the game live on ESPN3, their Internet-only broadcast channel. IT-UMS staff provided all graphics, production, direction, replay, camera work, and audio.

# **Training Opportunities**

#### First IT Professionals Unconference

On Jan. 18, IT hosted the first UD IT Professionals Unconference in the Perkins Student Center. Unlike a usual agenda-driven conference, an "unconference" is an attendee-driven meeting in which participants propose topics they'd like to discuss, vote on the sessions they'd like to participate in, and then lead the sessions. The format encourages learning, sharing, and discussion of topics relevant to the people in the room.

Among the topics that departmental IT professionals selected for discussion were migrating departmental servers to UD's new central Active Directory domain, migrating clients to UD's new central Exchange server, using central data on a Web site, social media security, responsive Web design, and virtualization alternatives. Notes from the 13 sessions are available online.

Feedback from the 60 attendees was favorable, with many commenting on how much they appreciated the opportunity to discuss technical issues with other UD computing professionals.

We plan to offer another IT Professionals Unconference late this spring. Contact us if you would like to be added to the IT Professionals email list for more helpful information on supporting technology across the campus—and to learn about our next unconference.

#### **LearnIT Express**

Beginning Jan. 6, IT has been webcasting short, 10- to 15-minute video sessions every Friday at noon. This new series is called **LearnIT Express**. Each session demonstrates or introduces a technology tool or service that could help participants accomplish their work more easily.

The first LearnIT Express sessions introduced Microsoft Excel PivotTables, the University's WordPress service, the UD Drop Box, and collaboration tools. Upcoming LearnIT Express sessions are listed on the LearnIT@UD calendar.

Participants can ask questions using live chat during each live webcast. Each session is recorded and made available from the LearnIT@UD Web site. For more information, visit the LearnIT Express Web page.

### New LearnIT@UD sessions

LearnIT@UD continues to add new sessions based on feedback we receive from students and staff. One new session, "IT Tools for Collaboration," discusses IT tools available to the campus. This session provides an overview of SharePoint, Google Apps, Sakai@UD, and Samba Shares. We compare security, space, access, and control features for each tool.

If you'd like to request customized LearnIT@UD sessions, please contact the IT Support Center.

You can browse our upcoming sessions on our training calendar or view one of our many recorded LearnIT@UD sessions online.

#### UD Capture—There's still time to save time in class

Many of your colleagues are saving class time by having their courses recorded through UD Capture.

A common sentiment we hear is "My students don't always 'get it' the first time I present it." Record, review, retain—that's the essence of classroom recording.

Over the past academic year, over 300 courses have been recorded using UDCapture. Visit <a href="http://udcapture.udel.edu/2012s">http://udcapture.udel.edu/2012s</a> to see the variety of classes being recorded this semester.

And you can still sign up for spring. Go to <a href="http://ats.udel.edu/udcapture">http://ats.udel.edu/udcapture</a> to request that your spring class be recorded and to learn more about the UDCapture system.

# **IT Support Center**

IT now supports Numara FootPrints call center software for other UD departments

The IT Support Center has been using Numara FootPrints to track calls and email messages for help with IT problems since March 2011. Since that time we have closed over 24,000 incidents. This system ensures that requests are not lost, and it has greatly improved our internal workflow.

Other departments have taken notice and are interested in using the system to help track their calls and email messages. FootPrints is extremely customizable as an incident tracking system; its use is not exclusive to IT issues. For a one-time fee of \$4,500, we can build a workspace to help your department respond to and track calls and email. (Includes licenses for up to four support staff. If you have additional staff or unique needs, you may need to purchase additional licenses.) If you are interested in a demonstration of FootPrints, contact the IT Support Center online or call 831-6000.

### Personnel

**Dan Connor** became a member of the IT Network & Systems Services (IT-NSS) Infrastructure unit in November as a Computer Operator I. Dan has several years experience working in a high-volume call center. He will work second shift, monitoring the central systems, running administrative production, and operating peripheral equipment.

**Ben Miller** joined IT-NSS as a Systems Programmer IV on February 1. His primary responsibility is to provide systems administration, programming, and analysis for the high performance computing (HPC) cluster maintained by central IT in support of UD researchers. During his 18 years experience with UD's Electrical & Computing Engineering and Computer and Information Sciences departments, Ben has had extensive experience providing systems support for HPC clusters.

**LaRoy Robinson** joined the IT Client Support & Services (IT-CS&S) unit working in the IT Support Center as a Technical Support Specialist II. He has extensive experience providing IT support to clients. LaRoy will provide first level support answering technology-related questions and analyze clients' IT problems with a goal of "first call resolution."

The IT Activity Report is published 4-6 times a year. Archived reports are located at http://www.udel.edu/it/activity-reports.html. If you have comments, questions, or suggestions for future articles, contact the IT Communication Group at it-commgroup@udel.edu.