
Voice over Internet Protocol coming to campus

Faculty and staff will receive new phones when Voice over Internet Protocol (VoIP) technology comes to campus this summer. This advanced voice service, with equipment by Cisco, is being installed by UD Telephone Services in partnership with Dimension Data.

The new system will offer nearly all the same features as the current Centrex phone service (e.g., on campus four-digit dialing) with added benefits such as caller ID and message waiting, free domestic long-distance calling (including Alaska and Hawaii), and improved sound quality.

UD phone numbers will remain the same. More importantly, the cost of telephone service will not increase.

VoIP carries voice conversations as data packets, which are transmitted over the University network rather than a separate phone network. This setup eliminates the need to monitor and repair the existing, separate telephone infrastructure.

Dan Grim, IT's Chief Technology Officer, explained that the current phone system's copper infrastructure is aging and costly to repair, some of it being 60 years old or older.

An official cutover to the new VoIP services is scheduled for mid-August. To prepare for the transition, beginning in June and continuing throughout the summer, a Telephone Services team will be installing a new phone alongside the existing phone in every office.

Faculty and staff should continue to make and receive calls on their existing telephone, but may also place calls using their new telephone. All inbound calls will continue to be routed to the "old" equipment until the cutover in August.

VoIP will provide a robust, yet cost-effective solution that will benefit the University in the longterm.

[UD's VoIP website](#) will be updated as the project progresses, providing information on phone features, a tentative schedule, training resources, and FAQs.

Migration from Mirapoint (UD Webmail, mail.udel.edu)

At about 2:40 p.m., Friday, April 12, the Mirapoint servers behind the UD Webmail service (mail.udel.edu) suffered a catastrophic failure. The service was unavailable for over 16 hours. When we restored the service from a UD Disaster Recovery snapshot, we were unable to recover email sent to accounts on this service from noon through 2:30 p.m. on April 12.

This incident was the culmination of a series of problems with the Mirapoint servers, none of which engineers from Mirapoint have been able to fix. In fact, new problems have surfaced since April 12.

IT had been working on a migration plan for Mirapoint (UD Webmail, mail.udel.edu) accounts that would have been implemented this summer. However, the April 12 failure convinced us to accelerate the migration.

As of May 15, over 14,000 accounts have been moved from the UD Webmail service to one of UD's other central email services: Google Apps at UD or UD's central Exchange service. Approximately 900 accounts still need to be moved. Because of the problems with the Mirapoint servers, we plan to move the remaining accounts off the UD Webmail service on Monday, June 17.

We have

- offered individuals the opportunity to move their accounts to Google Apps on their own;
- moved large groups of non-employee accounts (e.g., graduate students, employee spouses, retirees, Osher Lifelong Learning Institute);
- worked closely with departmental IT professionals to move their colleagues' accounts; and
- offered extra email migration help, including drop-in help in Smith Hall on the Newark campus and at Arsht Hall on the Wilmington campus.

If you are still using mail.udel.edu (UD Webmail, Mirapoint), you can follow our online directions to [migrate your email account](#). For more information, review these three *UDaily* articles:

- [IT staff offers extra help moving accounts to Google Apps at UD, Exchange \(5/1/13\)](#)
- [UD Webmail accounts successfully migrating to Google Apps at UD, UD Exchange \(4/19/13\)](#)
- [Solutions to webmail crash: Problems with email servers to accelerate migration of UD employee email to other platforms \(4/15/13\)](#).

If you need assistance moving your account, contact your department's or college's IT staff or contact the [IT Support Center](#), consult@udel.edu, or (302) 831-6000.

Planned Outages

The next round of patches to UDSIS is planned for Saturday, June 8. These fixes are expected to impact Financial Aid processing. The plan is to bring the system down for part of that day, starting early in the morning. The system is expected to come back up in the afternoon.

Security, Privacy, and Safety

IT is again working with the University's external auditors from KPMG's Information Technology Advisory Services. Over a dozen IT staff members have completed documentation requests for the audit. This year's audit covers access controls, user accounts, system privileges, operational procedures for data center access, change controls, testing and approvals, job scheduling, and data backups.

Infrastructure

DAS project to improve campus coverage for cell phones

The University has engaged consultants to assist in the development of an RFP for a Distributed Antenna System (DAS) for the Newark campus. The intent is to bring the various cellular providers (i.e., AT&T, Verizon, and possibly Sprint, T-Mobile, and Metro PCS) into the process so that their customers can get better coverage on campus. IT has meetings scheduled with various campus constituencies on May 17 to kick off the project.

Research Support

Expanding the community cluster program: Do you want to purchase compute nodes in UD's second HPC cluster?

January 2012 marked the first use of Mills, UD's first community cluster. Mills represented a partnership between 50 faculty investors and Information Technologies in funding and operating a general-purpose, high performance computing (HPC) cluster for a broad base of UD researchers. IT paid for the high performance (Lustre) storage; networking switches (InfiniBand); the head node; the physical environment (e.g., space, cooling, and power); system administration; and installation of commonly used software.

Faculty and their research groups paid for compute nodes and took responsibility for installing their own specialized commercial and open source software.

More recently, several faculty members have asked when they could purchase a share of a second community cluster, one that could be available by January 2014. If you are interested in participating in a second UD community cluster—using it for your research, sharing some of the costs of the cluster—contact Dan Grim, IT's Chief Technology Officer, by June 14, 2013 to help us understand your research needs and level of commitment.

IT staff have held recent informational meetings with vendors such as Dell, IBM, Intel, and SGI to identify what design options are currently available and effective. The final design decisions and compute-node costs will depend on the input from the UD research community. To make sure your input is included in our design and cost-sharing plans, communicate with Dan Grim by June 14.

A promising base configuration might include a dual-socket compute node (Intel processors); 64GB memory; Linux-based with job scheduling; four years of pre-paid hardware maintenance, with a target cost of \$5K-7K/node. Options might include a coprocessor (Intel Phi/NVIDIA GPU). Please contact Dan Grim (grim@udel.edu) as soon as possible—but no later than June 14—if you are considering taking part in this second community cluster.

IT gauging interest in a large storage condo system

As a result of discussions with faculty on UD's Research Computing Advisory Committee, IT is exploring the possibility of setting up a UD storage condo, a large central system that would allow faculty, researchers, and staff to store and share large datasets on campus. A UD storage condo could provide short-term project storage or long-term storage of frequently accessed datasets in a local cloud storage model. The cost of participating in a storage condo would be much less than purchasing RAID storage for a department or research group, and, unlike commercial cloud providers' services, a UD storage condo would be housed on campus, meeting the requirements for handling more kinds of confidential and proprietary data. If you are interested in UD setting up such a system, contact Dan Grim (grim@udel.edu).

Participate in UD's new online discussion group on high performance computing

We recently created the UD Google Group hpc-ask@udel.edu as a discussion venue for UD's high performance computing (HPC) community. You can use it to ask questions, start discussions, or announce relevant workshops and campus events. Once [registered](#), you can choose to receive postings emailed in various forms (e.g., daily digests). The discussions are archived and searchable.

Two summer workshops: “Data Intensive Summer School” and “Proven Algorithmic Techniques for Many-core Processors”

This July, UD joins a national group of geographically dispersed, prominent universities as host sites for workshops organized by the [Virtual School of Computational Science and Engineering \(VSCSE\)](#). The multi-day virtual workshops will be held in UD videoconferencing studios, led by faculty and researchers from UC San Diego's Supercomputer Center and the University of Illinois at Urbana-Champaign, with on-site UD teaching assistants. The workshops are open to grad students, post-docs, faculty, and professionals at \$100/workshop.

- [Data Intensive Summer School](#) (July 8–10)
- [Proven Algorithmic Techniques for Many-core Processors](#) (July 29–August 2)

The [VSCSE](#) is a national, NSF-funded, virtual organization, based at the University of Michigan. Its goal is to develop and deliver a computational science curriculum that accelerates the ability of faculty, staff, and students to use emerging computational resources to advance science and engineering. To register, go to <http://sites.udel.edu/vscse/register>.

Training on geospatial computational and visualization tools

Help us plan our 2013-2014 workshops and discussions on geospatial information analysis, visualization, and computing environments. Take our [online survey](#) to indicate which topics and presentation formats you prefer. We've included several topics you have already requested. Feel free to suggest additional ideas.

GIS news, events, and announcements

We have published the [May edition](#) of the Geographic Information Systems online news summary. You can read updates about online data resources such as the Delaware DataMIL and commercial map data providers, applications relevant to the digital humanities, new versions of open source software, and various conference events.

Teaching and Learning

The Summer Faculty Institute: May 28-31

The University of Delaware's Summer Faculty Institute (SFI) will be held Tuesday, May 28 through Friday, May 31 from 9 a.m.–3:15 p.m. each day in Gore Hall. Breakfast and lunch will be provided.

The SFI is the premiere event at the University of Delaware that allows UD faculty to take advantage of the latest research and technological advances in classroom and online instruction. The program changes each year to reflect the latest progress demonstrated by UD faculty, the newest insights from educational research, and the latest opportunities presented by technological advances.

This year's event will feature guest speakers each morning with complementary presentations by UD faculty each afternoon. The event is "bring your own device"—please bring a suitable Internet-connected device each day.

The featured guest speakers are

- **May 28:** Terry Doyle, [Ferris State University](#), "The new science of learning: How teachers can help students learn in harmony with their brain."
- **May 29:** Phil Hill, [e-Literate blog](#), "What can MOOCs teach us about online learning?"
- **May 30:** Ken Cavallo, [iSchool Initiative](#), "New directions in mobile learning."
- **May 31:** Peggy Smith, [Smith and Associates](#), "How to attract and retain motivated students in your major."

Registration is free and open to the University community. Attend the whole week, individual days, or selected featured sessions. Participate in-person in Gore Hall or online from any location. To learn more and to register, visit the [Summer Faculty Institute Web site](#).

IT Transformation grants update

From the proposals accepted last August, we are working on 31 projects with 44 faculty members from 20 departments.

Five professors from five different departments are transforming how face-to-face class time is used. They each applied separately, unaware that their goals and interests were closely aligned with those of their colleagues. Through the grant program, we brought their projects together and facilitated their work as a cohort, but they also retained the flexibility to meet their individual needs. These faculty members are looking at the best way to use face-to-face time in class and to structure the work that happens outside class time. Early results have been encouraging as a new model that could work for other courses.

Another project is investigating new methods for lab data collection and presentation of lab reports. In the proposal, the applicants called for the "development of a field-tested, pedagogically appropriate, scalable, and logistically sound content delivery and management plan that can be adapted and applied across courses." The grant provided the technology funds and technical expertise. This is one of many examples

where the transformation grant was used to seed small pilot projects to demonstrate the need for wider adoption.

Also, 11 faculty members from five departments are exploring new ways that students can interact with their course content through electronic textbooks. One of the proposals stated, "The experience gained in producing this interactive book could potentially serve as a model to help others interested in a wider transformation of the textbooks used at UD."

We expect to have more results to share as these projects conclude this May.

A call for proposals for new projects for 2013-2014 closed on May 1 and attracted 43 proposals that are currently under review.

Business Systems

"UD Time" on track to go live

IT Management Information Services (IT-MIS) and HR/Payroll have been working on the new time and attendance system, UD Time. UD Time is a Web-based solution that captures time and labor data and automates complex pay rules through the setup configuration. It validates and processes employee interactions according to the University's rules and policies.

HR has been setting up the University's policies within UD Time while IT-MIS has been writing interfaces to HR Payroll, UDSIS, and Maximo (Facilities work order system).

We are now concentrating our efforts on everything from time capture to processing payroll and verifying pay. As part of this project, IT Web Development (IT-WD) has worked with HR to adapt several Web Forms for the Time and Attendance system as well as created several new Web Forms and Web Views. For more information, contact the HR/Payroll Office.

WebReg registration improvements for students

Multiple changes were made to our Web registration ("WebReg") application this quarter to enhance the registration process for fall 2013. Several restrictions on registration were put into place so that the registration process would conform to current policies:

- WebReg will now enforce the policy that restricts qualified students from taking more than one online course per term.
- WebReg will now prevent students from electing to take more than one course per term on a pass/fail basis and will also provide information regarding the potential pitfalls of taking courses on this basis. The message directs students to read the full [policy on elective pass/fail courses](#).
- Students can now submit Course Permit Request forms directly from WebReg when they are trying to add courses for which they are not allowed to register (e.g., a full class, a class whose remaining seats are reserved for a specific major, a class with an unmet prerequisite, etc.). This feature will greatly simplify the process of registering for these courses for the student and also reduce the number of calls and emails sent to the Registrar.
- Select departments have received training and are running Waitlists in a pilot program for summer and fall 2013.

Each registration cycle, IT-WD and the Registrar's Office recognize improvements that enable students to identify and register for courses they need and are permitted to enroll in. "The Registrar's Office has been asked for many years to ensure that the system enforce University policy in these areas. It is a huge and valuable accomplishment to have this now in place," commented Jeff Palmer, Registrar.

Courses Search improvements

[Courses Search](#) is integrated into our WebReg registration and drop/add processes. It is also used for ad hoc lookups and is available to campus and off-campus visitors. IT-WD works with the Registrar's Office to continually improve the search criteria and data enhancements that staff and students need. This

spring, Courses Search was improved to permit students and faculty to customize or filter their search for course information based on credits and location in addition to criteria that were provided previously.

UD Directory–new options

IT-WD has implemented some new features in the [UD Directory](#). We changed the search to use "contains" so that when a department or last name is entered, the search results will include that search term within it. For example, type "student" for department and several departments containing "student" in their title are returned. This feature works for first and last name, too.

You may request that a department contact, Fax, email, or Web site be added for your department, which will appear as the first item(s) in the department listing. Try it! Go to [UD Directory](#) and for Department, type "web." Choose "IT-Web Development" and click **Search**. In the search results, the first two lines, which contain departmental information, show the new items you may add for your department. You can request updates like this for your department by using the [Request for a Directory Contact form](#), which is also available on the UD Directory Help page.

Notaries are now available as a "search data" item. Students and employees may continue to update some items in their personal entries—see [UD Directory Help](#) or [customization options](#).

Advising Notes Excused Absence Notification now online

IT-WD continues improvements to the Advising Notes system with the addition of an Excused Absence Notification form. Assistant Deans may use this new feature to notify faculty if a student's absence may be excused according to the University's Attendance Policy. The form makes the notification process easier by generating the student's class schedule along with a list of his or her professors' email addresses. When the form is submitted, it not only sends an email notification to the specified faculty but also generates a record of the excused absence in Advising Notes. IT-WD partnered with the Arts & Sciences Undergraduate Academic Services and Registrar's Office to implement this new feature. Cynthia Shenkle, Arts & Sciences Undergraduate Academic Services, said, "It has made the process of notifying faculty much easier and more efficient."

UDataGlance Voyager and Fuelman views

A recent enhancement in UDataGlance enables drill down to the details of Voyager and Fuelman transactions. Clicking on the vehicle number will open a downloadable spreadsheet of details for the transaction, including date and time purchased, the name of the employee who made the purchase, merchant information, and gallons purchased. Access to these details will be useful in monitoring the accuracy of purchases for vehicles. Staff from Auxiliary Support Services, IT-WD, General Accounting, and IT-MIS collaborated to implement these new views.

Vulnerability Assessment complete

In IT-WD's continuing effort to maintain secure applications and application infrastructure, IT-WD recently enlisted the expertise of Verizon Security Solutions to perform a vulnerability assessment of both the application infrastructure and a subset of business applications. Though only a sampling of applications was tested, Verizon's engagement was educational and informative and reports were provided detailing areas of success and those that need improvement. Based on the reports, IT-WD began implementing recommendations, gleaned from Verizon and [OpenSAMM](#), for ongoing vulnerability mitigation within the University's business systems.

Financial Aid Shopping Sheet makes student costs more understandable

Students admitted to the University of Delaware can view their Financial Aid Award Notice (FAAN) online at their customized My Blue Hen Home portal. As part of our continuing commitment toward financial clarity and transparency for current and prospective students, Student Financial Services and IT-WD collaborated this year on various enhancements to the FAAN. A major enhancement was the addition of the standardized, cross-institutional *Financial Aid Shopping Sheet* championed by the Department of Education. This document provides admitted students with their financial aid information presented and calculated in a standardized manner, so prospective students can easily and confidently compare the

financial packages of the University of Delaware and other institutions that have also voluntarily adopted the Financial Aid Shopping Sheet. For more information on this government initiative, visit <http://www2.ed.gov/policy/highered/guid/aid-offer/index.html>.

Financials

- Subsystem feeds to the General Ledger from various Auxiliary Services operations have gone into production and others are under development. At the same time, a feed of accounting transactions (to record services by the Delaware Biotechnology Institute) to the General Ledger is also under final review.
- The Research office requested that a secured view of the accounting for grants be created for campus view. The secure view has now gone into production.
- A General Ledger "Scrub" program to account for department changes in our chart fields is in final review for production. We have applied financial bundles 19 through 24 to the "Demo" database and are evaluating the impact of applying them to Financials this year.
- The Research Office thanked IT-MIS for finding and repairing a data problem in April that kept the closeout evaluation from running properly. Before a grant closeout, reconciliation is run. However, the error was causing only one account to be reconciled at a time rather than the whole Grants database.

UDSIS

- A new feature has been added to UDSIS that allows faculty to publish appointment slots for advising students. Students can then log in to UDSIS and schedule appointments. Email will be sent to students and faculty at the time of the scheduled appointment. A daily email will remind faculty of all their appointments for the day. A similar email will remind students about upcoming appointments. A second phase of development with more features is planned for later in the year.
- Advisors will now be able to see student IDs on the Advisor Center page in UDSIS. This feature makes it convenient for faculty to see all of their students' information on the same page while advising them.

Oracle Database Software upgrade project

The IT-MIS Database Administration (DBA) team completed the project to upgrade the base Oracle database software to the latest version for the Production Web Database and application. The programming staff completed testing the application to ensure a smooth transition to the new software version. The production database was successfully upgraded in April.

In addition to the database software upgrade, the database itself was moved to a larger, more powerful database server, providing greater capacity and performance gains. The test databases remain on the original production server to minimize resource conflict for production access.

Planning for the PeopleSoft HR database upgrade has begun with a planned completion time of spring 2013. The upgrade will begin with one of the test HR databases, with testing to last approximately one month. The production HR database will be upgraded in place on its current UNIX server. The HR Data Warehouse reporting databases will also be upgraded as part of this project.

Student Administration database reorganization

The DBA team completed a reorganization of the database files that comprise the PeopleSoft Student Administration database. The database was growing significantly while simultaneously experiencing subtle performance impact. The files were upgraded to a more efficient internal management technique and this provided significant gains in available disk space for growth and faster access to much of the data. The DBA team is looking into similar methods for some of the other databases.

Event Production and Media Services

IT University Media Services goes RED

The IT University Media Services (IT-UMS) Video Production unit purchased a RED EPIC-X Mysterium-X digital cinema camera system. The RED camera is capable of capturing 5K images at up to 120 frames per second. RED cameras have been at the forefront of the digital cinema camera industry since 2007. Compared to HD video cameras, Digital Cinema cameras are able to shoot in lower light, provide higher resolution, and provide outstanding texture. RED cameras record RAW data (REDCODE). This “visually lossless” codec is part of a RED workflow design that fits into their current post-production systems.

Due to a new manufacturing facility and increased competition from other manufacturers, RED recently lowered the cost of these cameras by a significant amount. Additionally, RED has begun an Educational Institution program, which further reduced the cost of ownership of RED products to the University.

Moving up to the RED digital cinema system represents the next logical progression for the IT-UMS Video Production unit as part of their mission to portray the University and its programs using professional media creation tools.

Training Opportunities

LearnIT@UD: Together we're better

IT is always looking for ways to partner with other campus units and departments. Over the past few months, LearnIT@UD staff collaborated with Human Resources on a number of projects. One project involved planning a new series of workshops that will cover University business processes. The focus of these workshops is to help new University of Delaware employees quickly learn what they need to know about how the University and their department or unit conduct business.

Using screen capture: Share what you know

Did you know that LearnIT@UD staff work with staff from departments who are interested in sharing what they know with the campus? For example, Krista Urbaniak, from the Registrar's Office, used our campus lecture capture tool, UD Capture, to record steps to show how to add or change student advisors. According to Krista, “It allowed me to really sit down and think about our most common questions and put the answers in a user friendly format. I know that posting the brief session on our Web site will save me tons of time.” There are many ways IT tools can help us all learn from each other. If you think you or your staff might benefit from learning how to use screen capture tools or other ways to share topics from your area, let us know by sending email to consult@udel.edu.

For our training calendar, recorded sessions, and all LearnIT@UD resources, visit the [LearnIT@UD Web site](#).

IT Support Center

IT Client Support & Services (IT-CS&S) has implemented a “chat” service as a convenient way for clients to receive IT help. This feature allows clients to continue working on their computers, while keeping a chat window open to ask questions about a particular IT problem. Clients can access this service on the [IT Support Center Web page](#) or on the [Mirapoint Migration Web page](#).

Click the **Live Chat Online** button and type your question. Multiple IT staff members monitor the chat service from 9 a.m. to 4 p.m. to ensure quick replies to your questions. We began the chat service to offer another method for helping people moving from Mirapoint email to Google or Exchange mail. The chat service will continue to be useful as another opportunity to interact with IT support staff, in addition to calling, sending email, or texting the [IT Support Center](#).

Personnel

This past April, two IT Network and System Services staff members retired from the University:

- John Hall (Supervisor, Network Maintenance) retired after 33 years of service.
- Regina Harding (Supervisor, Computer Operations) retired after 30 years of service.

At the end of June, three more IT staff members will move on to the next phase of their lives.

From IT-CS&S:

- Carol Jarom (IT Resource Consultant III) will retire after 29 years of service.
- Dick Sacher (Associate Director, Research Data Management) will retire after 28 years of service.

From IT-UMS:

- Charlene Mylin (Administrative Assistant III) will retire after 23 years of service.

We will miss them all and appreciate the many years of service they've given to IT and UD. Thank you, congratulations, and best wishes to these IT retirees!

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.