

DoIT TODAY

The UNCP Division of Information Technology • Fall 2010

TOGETHER MOVING FORWARD

Welcome to the campus. The Division of Information Technology (DoIT) strives to provide the best possible resources and services to the campus. DoIT is always trying to help you understand what's available for you. The better informed you are, the better decisions you can make. This issue of the DoIT Today discusses the current and upcoming projects on campus. We hope you find this issue useful and enjoyable.

We want to hear from you!



Dr. Bob Orr

Hopefully, you will agree that we are taking great strides with our technology here at UNCP - enhanced by strong partnerships as we mutually share in each project's success.

For teaching and learning, this issue of DoIT Today has feature stories about new technologies such as Wimba and Blackboard plus numerous classroom technology upgrades as well as TutorTrac, to assist with student success. Administrative users will find stories about the new event management system, EMS and Business Services' implementation of SciQuest, a new online purchasing system. There is information on new administrative applications for the near future, including WebFOCUS, a new data reporting system.

Looking ahead, we need faculty, staff and student voices as we shape our technology for the future. As we upgrade our campus network, we need your input in rewriting how we as individuals want to use our network and in how we secure our digital information. We must work as a collective group to bring clarity to our directive for student computing. Finally, there are two academic items from our strategic planning effort that have yet to be addressed. Specifically, our conversations need to focus on solutions to address instructional technology support as well as to develop criteria by which technology-based teaching, scholarship and service are recognized - two pretty tall orders.

Please allow me to thank our DoIT staff members for their efforts this summer. I am grateful to be a member of this great team. Their work during the summer was truly impressive. Here's wishing you a great fall semester, and I do hope you share my sense of optimism and excitement about our future. ■

By Dr. Bob Orr

Associate Vice Chancellor for Information Resources and Chief Information Officer

REBUILDING for the future

Reliable, expandable campus network

DoIT is preparing to undertake a major initiative to rebuild the campus network. The new network will include significant improvements to provide better service and improved reliability. The project consists of three major components: replacement of outdated network equipment, increasing redundancy and resiliency, and upgrading network bandwidth capacity. Some elements of the current network, such as fiber optic cable and wireless network access points, will be retained in the new network.

One critical improvement will be the upgrade of the network core from 1 to 10 Gbps (10 billion bits per second). While the core is handling current traffic loads, it has been in place for several years and will not handle anticipated increases. The new core will handle these higher loads and will only require replacing one module in each of two existing switches.

Another critical upgrade will add new

switches to improve communications between data centers. These new switches are designed for data center environments and provide the ability to connect servers at 1 and 10 Gbps at significantly lower cost than alternative solutions. Together with the core upgrade, this will enable university servers to handle increased workloads while maintaining a high level of performance.

In addition, the upgrade will add a new distribution layer to the network. This layer will dramatically improve the resiliency of the network in the event of the catastrophic loss of a data center, and it will provide better utilization of core fiber. With the new distribution layer, more buildings will remain online even if part of the network core fails. This will overcome a crucial shortcoming of the current network architecture which was designed around 1990. Network routing will be more distributed, resulting in less traffic on core connections and improved manageability and security. It will also allow UNCP to complete a migration to a network architecture that will improve DoIT staff efficiency by automating some labor-intensive processes.

The upgrade will include changes in the way individual users interact with the network. New equipment will provide

role-based network entry. This means that the network will recognize a user and grant access based on the user's identity, no matter where the user is accessing the network.

One of the most important aspects of the implementation is to address the practical needs of both academic and business units. This will require data collection from a variety of users. This data will include ways in which the network is currently used or may be used in the next few years. It will also be used to develop a high-level network model that includes security measures dictated by federal and state laws and University policies. The goal of this work will be to balance ease of access with security. The model will be presented to the university leadership for approval. Once approved, DoIT will begin a detailed design. The design will be implemented in a phased approach to limit impact on users. While the data is being

collected over the next few months, DoIT will install certain hardware components to address some universal performance needs.

This upgrade is the result of intensive research and planning over a period of several months. The design incorporates some of the latest network innovations and incorporates technologies capable of addressing the unique demands of a university network, which must accommodate both academic and business needs. The project is a comprehensive overhaul of the existing network and is anticipated to take several years to fully implement. The new design will provide a scalable, expandable and manageable foundation for systems that are critical to the University's success. ■

By Tom Jackson

Associate Chief Information Officer and Chief Technology Officer



Software updates and sharing the expertise training

A campus site license has been purchased for ChemDraw Ultra 12.0. ChemDraw is the most popular chemical drawing package in the field of chemistry and biochemistry, allowing users to create stereochemically correct structures from chemical names and get accurate IUPAC names for structures. The application allows users to communicate with the natural language of chemical structures, biological pathways and models. Fifty licenses will be added to the VCL for remote and on campus use by students, faculty and staff.

End-of-year funding also provided for the purchase of 300 Turning Technologies audience response system keypads (also known as 'clickers') for use in the classrooms as a pilot study. This educational tool allows faculty to engage students in activities, assess learning, gather data and enhance presentations. The audience response system integrates 100 percent with Microsoft PowerPoint and allows students to participate in presentations or lectures by submitting responses to interactive questions using the clickers. Classroom presentations become powerful data collection and assessment tools that collect real-time responses.

DoIT is also facilitating a collaborative training series featuring campus faculty and staff with expertise in applications or tools that are available for academic use. Training sessions will feature the basics for most applications, although intermediate and special topic sessions are being planned. DoIT would like to thank the individuals below who have already volunteered to "Share the Expertise" and hope others on campus will consider offering a session in their area of expertise in the future.

- ★ Adobe PhotoShop Elements: Basics - Margie Labadie
- ★ ArcGIS - Jese Rouse
- ★ Camtasia/Snag-It with Office 2007 via the VCL - Michael Alewine
- ★ ChemDraw - Siva Mandjiny and Rachel Smith
- ★ Dreamweaver 8: Basics - Lawrence Locklear
- ★ Dreamweaver CS5: Basics - Lawrence Locklear

Through collaborations across campus and end-of-year funding, DoIT has assisted in acquiring additional software and upgrades for existing software for use on office desktops, in classrooms and labs, or on UNCP's Virtual Computing Lab (VCL).

The Adobe Creative Suite applications Dreamweaver, Flash and InDesign were upgraded to version CS5. Two hundred licenses of Dreamweaver CS5 (Web design software) were purchased to add to the original 200 Dreamweaver 8 licenses already owned by UNCP. Faculty and staff have been assigned 100 licenses of the CS5 version for academic use, as have the students for instructional access. A number of Dreamweaver CS5 licenses will be made available on the VCL for all users just as Dreamweaver 8, CS3 and CS4 have.

Upgrades for 20 Adobe Flash (interactive authoring and Web content delivery software) licenses were purchased specifically for classroom instruction in the Art Department. Additionally, the campus license for InDesign (design software for print and digital publishing) was upgraded, although users can retain access to their desired versions (CS3 through CS5), as long as installation of more than 100 total licenses is not exceeded, including those used in the curriculum in labs and classrooms.

- ★ Microsoft Access 2007: Basics - Kristen Anderson
- ★ Microsoft Excel 2007: Basics - Natasha Burden
- ★ Microsoft Publisher 2007: Basics - Kristen Anderson
- ★ Microsoft Word 2007: Basics - Wanda Hunt
- ★ Remote Access Tools: FileZilla, RDP and VPN - Cassie Manis and Cindy Saylor
- ★ SPSS via the VCL - Tim Hayes
- ★ Turning Technologies Clickers - Dena Evans, Meki Graham and Emily Neff-Sharum
- ★ Visio 2007: Basics - Rob Wolf
- ★ Web Browsers 101: Features and Pitfalls - Cassie Manis

Look for e-mail announcing the training sessions via the faculty and staff listservs the week of August 23. Sessions will be scheduled beginning the first week of September and continue through the fall semester. Training sessions will be held in Oxendine 2202, unless announced otherwise. There will be limited seating available so sign up early. Contact Cindy Saylor at saylor@uncp.edu for more information or if you want to volunteer sharing your expertise with others. ■

By Cindy Saylor
Assistant Chief Information Officer for
Educational Technologies and Client Services

Blackboard 9.1 upgrade

The new Blackboard 9.1 is here! UNCP finished the Summer II session on Blackboard 7.3, which had been in production since the fall of 2008. After a summer of testing and configuring, Blackboard 9.1 is now in production. UNCP ran four Summer II courses on the new Blackboard 9.1 and were pleased with the results. We thank the three instructors - Dr. Timothy Hayes, Dr. Roger Guy and Dr. Jesse Rouse - and their students for helping us test this new version of Blackboard. All courses from the old Blackboard 7.3 system have been copied into the new Blackboard 9.1 system.

What's new? The new system is set up to create a course shell in Blackboard once a course is entered into Banner. In other words, every course that is available for students to enroll in through BraveWeb now automatically has a course shell in Blackboard populated with enrolled students and the instructor. If the course has the instructor listed as TBA (to be announced) in BraveWeb, the course shell will appear in Blackboard but with no instructor until this is updated. With this new system, all courses are by default marked unavailable to students. It is the instructor's decision to make the course available to students.

Another noteworthy feature is that instructors now can copy content from a previous course to a new course. With this new feature and with all courses having course shells, the Blackboard request form is no longer needed unless instructors decide to combine cross-listed courses or multiple sections of the same course into one Blackboard course. Developments are underway for a Web form that will allow instructors to combine their courses themselves, thus completely eliminating the need for the Blackboard request form.

UNCP no longer contracts with a third party 24/7 Blackboard Support Help Desk. Instead, DoIT has extended its in-house Help Desk hours. The new hours are as follows:

- Sunday: 3 p.m. - midnight
- Monday - Thursday : 8 a.m. - midnight
- Friday: 8 a.m. - 5 p.m.
- Saturday: e-mail and voicemail monitored 9 a.m. - 5 p.m.
- * Only e-mail and phone services are available after 5 p.m.



Another very helpful resource is the DoIT Blackboard Training page located at www.uncp.edu/doit/training/blackboard/. The page lists the Blackboard 9.1 training schedule and a link to request a one-on-one training session, and it also includes many helpful tutorials covering various areas such as the new Grade Center and SafeAssign. In addition, Blackboard has developed On Demand Learning Center for release 9.1, where you'll find short informative videos to guide you through Blackboard 9.1. These videos are linked from the DoIT Blackboard Training page as well.

Wimba online collaborative tools have also been added. Wimba Classroom is a live virtual classroom supporting multi-way audio, video, application sharing, polling and content display. Wimba Pronto is an academic-centric instant collaboration solution designed to promote learning through group work and academic and administrative help. Students and instructors are automatically connected with other Wimba Pronto users enrolled in the same courses.

Training opportunities for these new technologies will be available throughout the fall semester. For more information, contact the DoIT Help Desk at 521-6260. ■

By Alan PreVatte

More interactive video classrooms

UNCP will have five new interactive video classrooms available for scheduled classes in the spring 2010 semester. These classrooms are located in Sampson, DF Lowry, Dial, Oxendine and the Regional Center. There are also three new off-campus classrooms at Ft. Bragg, Richmond Community College Campus in Scotland County and Sandhills Community College. Beginning in the fall, training sessions for faculty and staff will be offered with interactive video classes scheduled for spring.

All eight classrooms will be capable of point-to-point high definition video conferencing with data sharing. Each room is equipped with a document camera, remote cameras, 42-inch screen for the instructor and a touch panel control system. These systems also allow the instructors to conference with guest lecturers. These guests can be accommodated through most video systems at their home sites, including Web conferencing. Lacking video capability, guests can be brought into a conference by audio from any source including a cell phone.

To connect multiple sites, each classroom can connect to an MCU or Multipoint Control Unit located in the Interactive Video Facility (IVF) in the BA Building. Through this unit, multiple sites can be included in one video conference and multiple sites can be seen on-screen at once.

UNCP will be asking the North Carolina Information Highway, the state video conferencing network operated by e-NC, to certify these classrooms for use on the state network that connects many state-supported entities in North Carolina. In addition, these new rooms may be used within the North Carolina Research and Education Network (NCREN), UNCP's network connection to the state and Internet, thus expanding video conferencing capabilities beyond the current facilities in the BA Building to other parts of the UNCP campus. For more information, contact Distance Education at 521-6367 or the DoIT Help Desk at 521-6260. ■

By Maureen Windmeyer
Director of IT Planning and Budgeting



New applications in store

Work is already underway on TutorTrac, one of several new applications to be rolled out this year. TutorTrac will be used by the Center for Academic Excellence to manage its tutoring services. Students will be able to schedule a tutoring session through BraveWeb. TutorTrac will improve efficiency by replacing the current manual record-keeping process.

In addition, the DoIT Applications unit is supporting Business Services on the implementation of SciQuest HigherMarkets. HigherMarkets will allow users to browse electronic catalogs from vendors and place orders immediately. HigherMarkets integrates with Banner to expedite the requisition and purchase order processes, and places orders with vendors electronically. Later implementations will add electronic billing as well. HigherMarkets also provides improved reporting and is being implemented on each campus as part of an overall efficiency project coordinated by UNC General Administration. HigherMarkets is a major project and is expected to take several months to complete. DoIT has installed the Banner Integration for eProcurement module, which connects Banner and HigherMarkets,

and will provide technical support as Business Services moves forward with the implementation.

Next up is the WebFOCUS enterprise business intelligence and reporting system. WebFOCUS will replace the Cognos ReportNet and Reporting Web Applications systems currently in use. WebFOCUS will give functional offices more access to Banner data and will enable those offices to undertake their own reporting. WebFOCUS will support both the Sungard Operational Data Store (ODS) data mart and the Banner transactional system. The implementation of WebFOCUS will be a major project that is expected to take at least a year to complete. The project will start in the fall semester with the formation of a planning team.

Later in the year, DoIT will start implementations of Workflow and Appworx. Workflow is a system that integrates with applications to provide a logical flow of data through the software. In a traditional application, one user enters data and another has to find that data in order to process it. With Workflow, the data will flow from one user to the next in a defined sequence,

simplifying processing and reducing complexity. Banner includes a rudimentary system called Quickflow with some of these features, but Workflow provides enterprise-level features and can work with a variety of applications.

Appworx is a scheduling tool that allows functional offices to create schedules for batch processes and monitor the results of those processes. DoIT has created these schedules using standard operating system tools for many years. However, each schedule must be implemented as a separate script, and it is difficult to ensure that each process completes successfully. Appworx will enable functional offices to monitor batch processes directly and offers enterprise-level features such as conditional execution of a process based on the successful execution of preceding steps.

In addition, DoIT has been working on a number of projects over the summer. These include installation of Banner upgrades that were put on hold during the payroll implementation. Banner is now up-to-date with the latest upgrades.

DoIT has also upgraded the Cashiering system to remove the last links to the legacy Plus Student Information System (SIS). This upgrade will allow UNCP to migrate the remaining data off the old Plus servers and decommission them. This will save about \$20,000 per year in direct costs, and



also free up some much needed space in the data centers.

Additional projects include building a number of interfaces between Banner and other applications to exchange data in an automated fashion. Among these interfaces are the new Banner-Blackboard interface, which now creates course shells for each

course listed in Banner, and updates the Blackboard rosters to match the data in Banner. There are also interfaces to applications listed elsewhere such as TutorTrac and EMS, as well as older applications such as Odyssey PCS. ■

By Tom Jackson

Event Management System

Online room scheduling system now being tested by Student Affairs

Student Affairs soon will be able to put aside the old cumbersome, manual process of event scheduling, with the introduction of event management software. Senior Director of the University Center and Programs, Cynthia Oxendine is leading the project to implement a new event management system (EMS), which will enable a request for meetings, conferences and social events to be made online. Other members of the Project Team include Lawrence Locklear, Web publisher; Sharon Kissick, registrar; and John Hayes, application analyst. Room requests will be processed quickly, and users will be able to find available rooms and times online. "The University Center and Programs staff are excited about EMS and the functionalities of this scheduling and calendaring software,"

shares Oxendine. "We are just as excited for our users - EMS will revolutionize the way campus schedules facilities."

Locklear looks forward to implementing the new Web calendar component. "The current Web calendar will be replaced, and users can expect more functionality as the new system provides greater event information and ease of adding events to the calendar." "I am delighted and expect that users will appreciate these new services," said Locklear.

Representing DoIT on the Project Team, Hayes said, "The Event Management System further leverages our existing IT infrastructure by integrating new capabilities and services." He added, "No longer will users have to manually search paper records or place numerous calls to find a place for

an event or meeting."

Kissick foresees that EMS will speed up the classroom reservation process. "EMS will house all reservations in one place. Department chairs and faculty can view live classroom availability," she said. "Additionally, they can request classrooms that fit their technological and pedagogical needs."

Oxendine shares that the project is in the testing phase with a focus on entering necessary data and in determining processes. January is the anticipated date for the system to become available for users to schedule rooms for meetings and special events, primarily for the University Center meeting rooms. For more information contact any member of the Project Team. ■

By Dr. Bob Orr

End-of-year spending brings new technologies to academic departments



Computer Science can now teach the latest technologies, and students will get hands-on experience using industry-standard technologies. In Chemistry, new software for students helps promote better understanding of molecular structures through specialized graphics. For Art, new workstations and upgraded software provide students opportunities to engage in advanced design such as 3-D graphics and new graphics printers. For faculty, new classroom teaching stations were installed. Students can engage new computers in the music digital lab. In Business, new laptop teaching technologies are available. In Education, it's a new interactive video room.

Academic Affairs heard the need and responded with necessary funding during the end-of-year budgeting process. Dr. Kathleen Hilton, associate vice chancellor for academic planning and special projects, worked closely with the academic departments and DoIT staff, and carefully assembled the team to engage vendors to ensure low pricing and just-in-time delivery. Business Services and Accounts Payable, in

the spirit of partnership and collaboration, all worked to meet the payment deadline and were highly successful in these efforts.

"Academic Affairs was pleased to devote available funds to classroom enhancements that have significantly strengthened UNCP's teaching and learning technology infrastructure," Hilton commented. "I appreciate the responsiveness of department chairs and the cooperation and determination of all involved to complete the work

in a timely manner. I hope that students and faculty alike will benefit from the additional capacity that's now in place."

As part of these efforts, the Media Center upgraded 75 classrooms to assist in teaching and learning. Because of the efforts, UNCP has 139 general-purpose classrooms that are fully equipped with a teaching workstation housing a computer and various other teaching technologies. Each room has a standard wall-mounted remote control for the data projector and audio. Out of these 139 rooms, 93 are also equipped with a Star and/or Smart Board. Many classrooms have DVD/VCR combination players while some have video presenters, presentation whiteboards and/or other teaching technologies. As covered in another story in this issue of DoIT Today, classroom upgrades included establishing a number of new interactive video classrooms to support Distance Education efforts. To learn more about classroom technology, contact the Media Center at 521-6254. ■


By Dr. Bob Orr

Three network upgrades bring enhanced services

During the summer, three important network upgrades were completed to expand capabilities and to resolve some long-standing connectivity issues. The Mary Livermore Library engaged the DoIT Networking team for assistance in increasing the wireless network capacity and coverage. After having consultants conduct a site survey, additional wireless equipment was purchased and installed. Library patrons should experience greater wireless networking coverage as well as increased bandwidth in the library.

Similarly, network upgrades have been done for the Nursing Department located at Southeast Regional Medical Center in Lumberton. New networking cables were pulled and the wireless access points were installed. These upgrades will help the offices and teaching spaces tremendously. One long-standing problem was

resolved when the campus fiber was extended to cover the offices in the Dogwood Lane area. Tony Chavis, network technician, was the project manager and provided oversight as vendors installed new underground fiber to the buildings. The offices of Distance Education, International Programs, Institutional Effectiveness and Sponsored Research and Programs are now connected to the campus network with increased bandwidth. The previous wireless link did not provide the necessary bandwidth. As a result, video conferencing equipment in Distance Education could not be fully utilized. These offices were also experiencing problems with common technology such as fax machines. The fiber extension has resolved the issues and has increased office efficiencies. The work was completed in July. ■



The Division of Information Technology reports to the Office of Academic Affairs and is responsible for providing a technological infrastructure of resources necessary to support the University's mission of teaching, research and service.

DoIT Today is published by the Division of Information Technology of The University of North Carolina at Pembroke. To send a feedback or request, please contact DoIT at (910) 775-4355 or doit@uncp.edu.

DoIT Today • PO Box 1510, Pembroke, NC 28372