

DIVISION OF INFORMATION TECHNOLOGY ANNUAL REPORT

2008-2009



The Division of Information Technology (DoIT) was focused on change for the 2008-2009 year. It was an incredibly productive time and the organization experienced the highs and the extreme lows associated with providing and supporting technologies for the University. The highs include many firsts for the division, from adopting a new name to rolling out multiple, innovative new technologies. The lows include a major failure of the e-mail infrastructure in October 2008. The organization learned from these experiences, both as individuals and as an organization, using the highs and lows to foster more robust services and to build a stronger support organization.

Dr. Robert Orr, Associate Vice Chancellor for Information Resources and Chief Information Officer

Later in the document (pages 26-34), please find a listing of our goals and objectives for the 2008-2009 year. Included below each action item is a list of DoIT activities to meet those goals and objectives. It is an impressive listing of accomplishments given the complex budget environment and our limited staffing. To summarize some of the major activities, DoIT changed our name, began a newsletter, deployed new e-mail systems, implemented a new authentication infrastructure, and completed a host of classroom technology upgrades. We went live with Banner Advancement, completed a major upgrade of Banner, in partnership with Business Affairs developed a Web-based budget reporting system, rolled out new business applications to support Student Affairs and Advancement, updated our Web and telephone directories processes, implemented a new work order entry and tracking system as well as a PC asset management system and prepared new centralized storage for faculty, staff and students to replace the aging Harmony and Snappy servers. In an effort to enhance expertise and skills, nine DoIT staff members became certified in industry best practices for technology systems and support.

Speaking of change, DoIT moved across the street into leased facilities in Carter Hall. Our main server room, along with appropriate personnel remained in Oxendine Science Building where there was a major refit of the air conditioning system. There was also a rework of the AC system in the Lumbee Hall server room. Both rooms also received updated UPS (Uninterrupted Power Supplies) and reworked electrical services.

Speaking of partnerships, UNCP was chosen as the pilot campus for the General Administration Payroll project. DoIT also explored alternatives for student printing and partnered with NC State University to capitalize on the use of the Virtual Computer Lab system to provide greater access to software. Media Center staff partnered with Dell and Apple to become a

certified warranty service center. Dell and Microsoft respectively awarded grants to DoIT for special projects. DoIT also continued work on meeting our campus strategic planning goals of IT governance by forming the Arts and Sciences Technology Advisory Committee, refining the role and purpose of the Banner Steering Committee and having an IT presence in Executive Staff meetings. We continued a focus on achieving SPARC objectives including working with the Faculty Senate and its various committees.

The Division of Information Technology remains excited about collaboratively moving forward in crafting common solutions and in creating new opportunities to meet our University goals and objectives. We realize the economic environment will create unique challenges in the coming year. These reductions are seriously impacting DoIT no differently than their negative impact on other campus departments. The way to survive and continue to grow is by working together as a team to achieve common, selected goals. Our hope is others will join us as a collaborative partner in these efforts. Together, we can be tremendously successful.

This report is an attempt to share, as an organization, what we have done or attempted to accomplish during the 2008-2009 year. You will find a narrative from each area within DoIT describing its accomplishments. As you well know, organizations are built upon the people who serve that organization. Recognizing that it is the DoIT people that enabled all the many accomplishments to achieve our strategic goals, each area narrative contains a short piece from individual staff members working within that area. Hopefully, this will give you an insight into staff activities within DoIT while calling your attention to their productive individual and collaborative efforts. The DoIT team, individually and collectively, is working to anticipate your needs while providing world class IT services in support of our University mission, goals and objectives. ■

Planning and Budget

Director: **Maureen Windmeyer**

This past year, the Planning and Budget area of the Division of Information Technology was busy developing processes and procedures both to identify and track changes in the DoIT funding. These new processes and procedures made it possible to follow and understand the process by which funds are moved and spent during the year and allowed DoIT to achieve the greatest efficiencies with limited funding. As most other offices, DoIT actively participated in the budget reductions for the campus by returning a position slated for communications and research and a second position in our Operations area. Fortunately, neither position was filled so no one lost their job in this budget reduction.

Planning was an essential element for DoIT, beginning in the fall 2008, all expenditures for both software and hardware maintenance were revisited. Some maintenance costs were eliminated while others were reduced. At one point during the budget year DoIT was \$300,000 in arrears but through

reduced spending along with help and support from Academic Affairs, the year ended on a high note in spite of the reductions.

The Division's base budget remains around \$3.5 million and with the addition of one-time dollars the 2008-2009 spending for DoIT was at \$4.273 million. This includes faculty and staff replacement computers, classroom and lab equipment replacement, operations, software and, of course, wages. EDUCAUSE conducts extensive yearly research to produce a core data set for IT organizations. This core data indicates that the mean budget for Masters 1 universities is \$5.994 million with a median budget of \$4.515 million. Wages account for nearly 60 percent of the DoIT budget compared to an industry norm of 46.9 percent. Currently, DoIT has 33 full-time positions and the core data mean is 42 positions with a median of 34.7. The figure shows DoIT funding sources for the 2008-2009 budget year indicating that roughly 30 percent of DoIT funding is fee-based and the reliance on one-time funding remains quite large.

The Planning and Budget area took the lead on a major relocation effort for the Division. Shortly before fall semester 2009, most of the DoIT offices relocated to Carter Hall, formerly part of the Odom Children's Home. In an effort to make additional office space for new faculty, the University leased Carter Hall and moved most DoIT staffing from Oxendine Science, D.F. Lowry and the Mimosa mobile unit. Moving DoIT to Carter not only vacated additional office spaces for faculty, but also assisted in centralizing and streamlining DoIT operations. Some DoIT staff stayed in the same locations. The Help Desk remained in D.F. Lowry due to its centralized campus location. The data center, along with operations staff, stayed in Oxendine Science, and staff in the Mary Livermore Library remained in the Library. The move did not impact any technology classrooms or computer labs, as all remained in the same locations.

A high point for the year was the Planning and Budget area's involvement in the highly successful UNC CAUSE Conference. The UNC CAUSE 2008 was hosted by UNCP, UNCG, NC A&T, NCCU and UNC-CH. Planning and Budget

staff members were responsible for registration and printed materials for the conference in Greensboro. The conference was well received and the surveys indicated that it was judged to be a well-organized and smoothly run event.

A major effort for the Planning and Budget was the revisiting of the various offices Business Continuity Plans. An older system provide by UNC General Administration was previously used for these plans, but was no longer a viable option as it was cumbersome, difficult to learn and did not allow easy updates to various plans. Data and text were exported from the archived plans in the old system's database and imported into Microsoft Word documents. The documents were delivered to each division and the departments updated the information in a more user-friendly environment. A number of plans from the various offices has been returned and are on file.

Maureen Windmeyer

I fully assumed the duties of IT Planning and Budget during this fiscal year and so learned to extract necessary data from Banner Finance while developing methods to track our expenditures. Working with the Applications staff, I developed a report for the Reporting Web Application to summarize budget, obligations, expenditures and budget balance for the fourteen funds administered by DoIT. With this report and the information from the executive summary in Banner, spreadsheets were developed to track every transaction in Banner on a daily basis so one can see any change in any line item daily. Using this information DoIT now has a tighter control over the budget to track where every penny is going. I can now troubleshoot problem areas such as incorrectly spent funds, miscoded spending or discover expenses not anticipated. I'm looking forward to starting a new fiscal year with these tools in place. Another accomplishment for the year was that I chaired the subcommittee on the registration portion of the UNC Cause conference co-hosted by UNCP this past November. We registered participants, tracked receipts, designed and produced the registration packets, and administered the registration desk at the conference. As part of

my community service I served on the board of the Friends of the Library at UNCP and on the committee for the Scotland County Habitat for Humanity Bike to Build fundraiser.

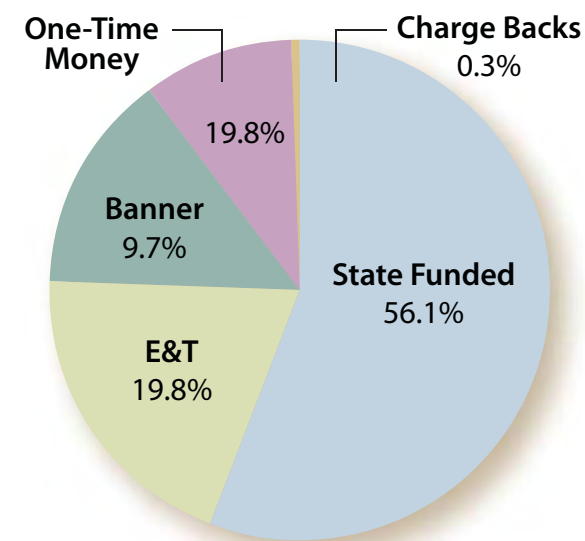
Yoshiko Guy

I actually worked for DoIT through December and then worked on a grant program focused on the returning sophomores. Only recently did I return to DoIT while still supporting the grant program. While at DoIT my most noted work was the DoIT newsletter DoIT Today which was published three times. In addition to work on the Web including redesigning and updating the DoIT Web site, I also worked behind the scenes in implementing PIER, UNCP's Public Information Emergency Response System. I administered the system, prepared and participated in training sessions for campus offices, worked closely with University and Community Relations and the Safety office in support of UNCP's first active shooter exercise on in October, plus served on the Threat Assessment Committee. As part of research and development, I worked with Social Work exploring the use of SharePoint, Microsoft's Web collaboration software. Working closely with the Division of Student Affairs and the University Center, online room scheduling forms were developed and deployed. I also worked extensively in migrating various Business Continuity Plans into Microsoft Word and then disseminated those plans to the respective offices. It was a very productive year and I feel quite proud of these accomplishments.

Alan Prevatte

Along with ongoing support of UNCP's course management system Blackboard, I was involved in the testing and supporting of an upgrade from Blackboard Academic Suite Release 6.3.1.424 to Blackboard Academic Suite, Release 7.3.230.0. This upgrade included not only a software upgrade going to a new version, but also a hardware upgrade which included upgrading both the application server and the database server. We finished the 2008 summer semesters on the older version, and went live with the new

DoIT Funding Sources: 2008-2009



Blackboard in fall 2008. I worked to keep the campus community informed of the upgrade through e-mails, announcements and various Web site updates while troubleshooting and supported solutions to various issues related to the upgrade. Other efforts included helping to form a Blackboard Task Force, which consists of various members of the campus community, to address specific issues related to Blackboard and met with representatives from Presidium to discuss 24/7 support of Blackboard. I also worked with DoIT Client Services staff to revise Presidium's knowledge base files which led to the creation of a new Blackboard troubleshooting flow chart while providing ongoing second tier support for our 24/7 Blackboard Support Help Desk. Fall 2008 found me archiving and removing Blackboard courses from the old system.

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I also represented DoIT on a campus wide committee which met for a year and explored the relative merits of Blackboard vs. Open Source Course Management Systems such as Sakai and Moodle. I attended the Moodle Administration training at the invitation of the NC Community College System. I provided System Administrative support for UNCP's involvement in a UNC General Administration Moodle pilot project during Fall 2008 and Spring 2009 and represented DoIT in a series of town hall meetings discussing a possible move from Blackboard to Moodle. My role has me currently involved in testing/supporting UNCP's own version of Moodle, which will have active courses in the fall 2009. I continued to provide ongoing support of BraveWeb and UNCP's Web server plus support the testing, troubleshooting, and support of UNCP's new streaming media server and was involved in various meetings and training for Podcast Producer.

On a personal note, I graduated from UNCP in May 2008 with a Bachelor of Arts degree in Philosophy and Religion and a minor in Computer Science. I was a member of Alpha Sigma Lambda, the Premier National Honor Society for Nontraditional Adult Students. For my involvement with Theta Alpha Kappa, National Honor Society for Religious Studies/Theology, I was awarded the Student Development Award, "Advancing Academic Success." I was also named Outstanding Student in Biblical Studies.

James Lewis

Since June 2008, one of my goals was to better serve the campus community through the Interactive Video Facility (IVF). In early 2008, student workers were very careless in the operation of the facility as well as in the maintenance of the facility. Since then, I've been able to reduce the number of complaints and keep facility issues to a bare minimum. In addition, we have reached out more to the campus community in hopes of becoming a media creation site for more distant learning venues such as Blackboard, iTunesU, etc. Many people around campus have heard about the quality of work we're producing in the IVF and the endless opportunities we can provide them.

In 2008, the UNCP campus upgraded to a new version of Blackboard which required a lot of instructional material to be moved from one version to another. With the help of Alan Prevatte, I assembled a small team of trained student workers to assist DoIT in the transition by manually creating instructor user accounts, copying and exporting course materials, and creating courses in a timely manner which was done within the allotted budget.

Vicky Brewer

I have been employed with The University of North Carolina at Pembroke since April 21, 2008. I really feel good about myself, because I have learned a lot of different things and I am still learning everyday. To be honest, I did not have much computer training before coming to UNCP. My previous job did not involve a lot of computer work. Since I came to UNCP, I have received various trainings such as basic Excel, Word, advanced Word, Office 2007, Banner, I-9, payroll, Visio, and travel policies and procedures trainings. I am beginning to learn more about how to do our daily budget spreadsheet.

I was involved in handling the Business Continuity Plans for our campus. There were a total of 25 plans that had to be changed from a pdf to a Word file, which was part of my responsibility. I was also involved in the UNC CAUSE Conference at Greensboro where our campus was responsible for

the registration and also for getting the gift bags together. I had never worked on anything of that magnitude, but I thought that everything turned out according to plan. I was also able to participate in the Second Annual

Administrative Excellence Retreat, which I thoroughly enjoyed. My work also included arranging the DoIT Retreat last year at the State Park, which was a success. ■

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Media Center

This time last year when the Media Center was asked to come up with a list of goals and expected accomplishments, it seemed almost unreal and farfetched that we would be able to complete them all. Not only did we complete them, we surpassed them. The upgrades across campus have provided the faculty and students with a more technologically advanced learning environment.

In the Jones Health and Physical Education Center, six classrooms received a complete upgrade including an LCD projector, teaching lecterns equipped with a computer, a DVD/VCR unit and wall-mounted remote control operational units. In one of these classrooms a Star Board was also installed for education majors at the request of Dr. Fiorentino, dean of the School of Education. The Business Administration Building had external audio speakers installed in each classroom and four LCD projectors were replaced. The Education Building also had external audio speakers installed in each classroom as well as five Smart Boards and one Star Board. Old Main, Dial and Oxendine buildings received equipment upgrades consisting of new LCD projectors, external audio speakers and wall-mounted remote control operational units. Although the Sampson Building is a fairly new building, upgrades to the operational aspects were necessary so that faculty members would have a more consistent means of using the equipment campus-wide.

The Media Center also saw an increase in the demand for portable LCD projectors and laptop computers for various workshops and events held on campus. The campus community also requested the use of digital cameras, video and music players over the past year. Other services provided were not limited to laminations, videotape conversions

and recording sessions for Social Work and Counseling majors, equipment repairs and duplication of signs for events held on campus. The Media Center received over 2,000 online work requests in the last year and worked very diligently to make sure that all were answered or resolved.

The Media Center has put forth a great effort and has proven to be a great asset to the University during this past year. Staff members of the Media Center are very proud of the accomplishments and hope these serve to benefit the University and its mission.

Adam Warren Love

Summarizing my past year here at UNCP is almost impossible without mentioning how far the technology has advanced in the thirty plus years I have been here on campus. We have come from little to no technology at all available on the campus to where we are now, where technology changes from day to day. I have been fortunate enough to be here through all these changes and help provide the necessary guidance and training to the campus community so that they could efficiently and effectively use this technology to the best of their abilities. This includes everything from a CD player to an LCD projector, from the classroom to the Chancellor's Boardroom; I have seen it all.

The 48 classrooms that were upgraded over the past year were at first looked at as a challenge. Looking back is now just another technology hurdle that we have crossed. I helped oversee the planning, installation and training that was associated with these projects. Along with the financial support of various departments on campus I feel as if we are on the right path in ensuring that our students are provided with the best technological resources for their advancing education.

Outside of the classroom, I helped provide technical support to over 200 various workshops and programs that were held across campus over the last

year. I have accumulated over 100 hours of comp time working after hours with these various organizations. I also provided several hours of assistance to teachers that were applying for National Board Certification by helping them edit their video submissions. I was asked to take part in the Cablevision Committee meetings and as a result we are currently in the process of a contract renewal with Time Warner that will provide better reception across campus and another movie channel for student housing. This past year found me extremely busy, and I have a feeling that this year will be more of the same. I, however, find comfort in knowing that with the right amount of help and support from the campus community, nothing is impossible.

Andrea Branch-Jacobs

The budget crisis that consumed all of us this past year made it rather interesting to say the least. It has been a year of tremendous change and growth, and I can honestly say that I am proud to be an employee of the Media Center here at UNCP. Classroom refreshes and upgrades proved themselves to be a vital part of our workload over the past year, and a great effort was put forth on my part in helping secure contractors, ordering materials and classroom availability. I was also responsible for all aspects of this in Banner that included, but was not limited to requisition entry and reconciliation. I am positive that the faculty and staff are taking full advantage of the technology upgrades in these areas, and I cannot help feeling extremely proud of all of our hard work.

While we were unable to attend any outside workshops or training off campus, I have had the opportunity to attend several on campus events due to work requests that ask for technical support at on-site events. Although some of these events were held after hours and on weekends, I have had the opportunity to meet people that have left a lasting impression on me both personally and professionally.

In addition to my regular work, I have the honor of being part of the UNCP Staff Council where I currently serve as Chair. The Staff Council strives to

create a positive, respectful workplace with opportunities for professional and personal growth for the staff. I have served on various committees through the Staff Council such as the Traffic Appeals Board, Physical Environment Committee and the Employee Recognition Committee (ERC). Monthly meetings were held to discuss issues concerning staff and their concerns, and several events were held to honor the staff for their hard work and dedication.

My plan for the upcoming year is to continue to strive to do my best to present myself as professional as possible no matter what situation may arise. I am looking forward to seeing what the upcoming year has in store for DoIT.


Brock Brayboy

In my past year of working at UNCP, I have had the opportunity to further my education and experience. When I started, I really didn't know what to expect but I truly enjoy working in the Media Center. Due to the University's interest in computer sales, I have had the opportunity to become an Apple Certified Macintosh Technician (ACMT) as well as Apple Certified Support Professional (ACSP). Before this past year, I hadn't received very much exposure to Apple computers. I am now able to disassemble and reassemble as well as troubleshoot problems with the OS and other software. I have also received certifications for desktop and portable Dell computers.

On another note, this past year I have been able to learn a lot about classroom technology and what it takes to get our classrooms technologically accessible for faculty, staff and students. While working in the Media Center under the leadership of Warren Love, I have gained a vast amount of knowledge dealing with everything from projectors to digital recorders. I have learned how to trace out problems with video and sound equipment. I believe that this invaluable information would not have been made available to me if I had not been granted the opportunity to work in the Media Center over the past year. I am looking forward to the upcoming year and what it may hold. ■

Client Services

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

 Change is often difficult, but change *is* often necessary to move forward to meet common goals and missions, to better one's self and to increase efficiency and productivity. In the last year, Client Services has effected many important technological changes on campus from the way in which both students and faculty/staff access e-mail to the delivery of support services, as well as a host of other introductions and upgrades in between.

In the summer of 2008, Client Services began the Outlook-Exchange/Active Directory/Security Updates project. Although the project was not completed until April of 2009, it had the largest impact on every individual connected to the campus network. During this project, Client Services worked with

Networking staff to migrate existing e-mail from the old Brainy server to the new Exchange server, set up Outlook 2007 (or Mac equivalent), change the name of the individual campus machines, add individuals to the new domain, move individuals to the new directory system, run security updates on all machines and install LANDesk so we could monitor inventory and push updates remotely without having to touch every campus machine. As many of you know, this task per person required two hours to two days depending upon how much e-mail needed migrating and how long it took to run the security updates.

In the midst of the project above, Client Services also worked with Tom Jackson to move our students to a new e-mail system via Microsoft Exchange Labs. BraveMail affords students more memory, better manageability and flexibility in use, as well as more cloud computing features such as SkyDrive and file sharing.

Last fall, we began offering Office 2007 Suite for anyone desiring the upgrade. This semester, we began pushing the upgrade through LANDesk during both day and evening hours. Robert Hughes has done an outstanding job as project leader to make LANDesk work for DoIT. Many person-hours have been spent installing LANDesk, getting machines capable of running it and creating scripts to perform tasks. Since then, we have upgraded almost all the campus to Office 2007, upgraded virus protections and Java software, upgraded classroom machines and removed Office 2003. Many, many staff hours are saved by installing software and deploying upgrades through this means.

In the spring Client Services once again began using Desktop Remote Control to access individual client computers in order to install or update software and assist with troubleshooting and other issues in real time. This ability has greatly improved the DoIT's response time for these types of requests.

Collaboration with NC State University is allowing UNCP to access software

without physical presence. Our faculty and students are now using a virtual computing environment to access our licensed software via Shibboleth authentication. The first success was EcoBeaker/EvoBeaker for Biology 101 classes this past spring. Work continues on this endeavor to offer more software applications via this access.

Since April, Client Services has been assisting Networking with moving faculty and staff files to the new SANS Storage Server. No one is happier to see Harmony replaced than Client Services and the Help Desk. We welcome with open arms facstaff.filer with its reliability, redundancy and 1GB space per user.

A pilot study of two industry-leading e-text readers was conducted by DoIT in response to Chancellor Meadors' proactive approach to seeking alternative means for accomplishing teaching and learning, as well as overcoming increasing cost of textbooks. The pilot study was conducted April through May 2009 with four full-time UNCP faculty and four e-text readers to determine if faculty thought both they and UNCP students would benefit from using this technology instead of print textbooks. The faculty members assisting with the pilot study were Dr. Mark Canada (English and Theatre), Dr. Timothy Hayes (Sociology and Criminal Justice), Ms. Rachel McBroom (Biology) and Dr. Rose Stremlau (History). The e-text readers were two Amazon Kindles and two Sony Readers. Overall, the participants agreed that e-text readers have some good features, lack some necessary features or have features that need upgrading. Of particular note is the lack of features for persons with low or no vision. All seem to agree that both units serve well for recreational reading, but are not ready for higher education quite yet.

Client Services, under Liz Cummings' leadership, installed over 147 new faculty and staff computers in the last year in addition to completing special requests and standard work orders. Additionally, an amazing 200+ computers on campus received additional memory and were upgraded to XP, as well as over 200 new computers installed in the classrooms and labs. Tabitha Locklear and Daryl Burgwyn ably accomplished these tasks and

created images for machines in order to have all the appropriate software available in departments, classrooms and labs.

Of course, when one replaces many old machines with new ones, one must manage the disposal of the old, no-longer-functional, machines. To ensure data security of computers no longer needed by the University, over 300 machines have been wiped of their data and prepared for surplus in the last few months by Charles Kearney.

In the last year, Melanie Jacobs has provided an extensive menu of training sessions as well as many opportunities to attend each. She has provided multiple overviews and task-specific sessions, in addition to Beginners and Advanced level sessions on Blackboard, Office 2007 Suite, Respondus, Dreamweaver and Turnitin, and many of you have responded favorably by attending.

Client Services closed 4,376 work orders in the last year precipitating from many more phone calls and e-mails to the Help Desk, many of which were resolved at the time of contact. An incredible Help Desk staff of Wesley Frazier, Crystal Barton, Mary Graham and Charles Kearney, with additional assistance from a talented BraveTech staff assisted many of you on a number of occasions during some smooth and bumpy technology issues.

Although schedules and budgets do not often afford time and funding, Client Services staff have been educated and certified in a number of technology and services areas, and have shared their experiences with others. For example, Liz Cummings and Cindy Saylor became ITIL v.3 certified, and Crystal Barton, Daryl Burgwyn, Wes Frazier, Rob Hughes and Mike Pruitt earned Apple Certified Support Essentials 10.5 certification. The Client Services staff has been active in attending seminars, workshops and conferences in order to learn more and support further. Melanie Jacobs attended the Blackboard International Conference; Melanie and Cindy Saylor attended AcademiX 2009 for which Cindy also attended a Podcast Producer workshop. Cindy and Tom Jackson presented at UNC Cause





2008 "Adventures in Student E-mail." Liz Cummings, Robert Hughes and Daryl Burgwyn attended a workshop on LANDesk to learn more about the functionality of the application in order to leverage more return on the investment. With the realization that everything we learn, experience and share helps us help our campus users, Client Services takes great pride in our accomplishments and the work we have seen to fruition.

Crystal Barton

Over the past year, DoIT has gone through many changes upgrading our systems to better serve the needs of our clients. Not all of these changes have been smooth, and I have been at the front lines helping faculty, staff and students deal with issues that inevitably arise when transitioning between two very different systems. At the Help Desk, I've helped many faculty and staff deal with issues ranging from forgotten passwords to corrupt profiles to just plain slow computers. I do everything I can over the phone, and failing that, I create the work orders that go out to the technicians who actually visit the client in their office.

As part of the rollout, the process of sending out technicians to all computers on campus and converting them to the new Exchange e-mail and Active Directory system, I would prepare packets for the technicians that would assist them in the process. Once the rollout was complete, I would process all the paperwork and enter it into the system. This was in addition to working at the Help Desk and performing the rollout of several departments on campus.

During the summer of 2008, I participated in the Mac OSX Software Training that was provided to many DoIT members. I am proud to write, that I am one of only a few to pass the course and received a certificate as an Apple Certified Support Professional (ACSP). These skills have helped me to troubleshoot a wider variety of work order requests over the phone.

For the next year, we will continue to upgrade all the computers on campus, trying to streamline the computing process for all of our clients. I will spend my time assisting others who have experienced problems, while devising ways to prevent these same problems in the future. I hope to continue to be a valuable member of DoIT staff and continue contributing for another year.

Daryl Burgwyn

Since July of last year, I have participated in many projects and seen many accomplishments. I imaged and set up 24 Dell 755 machines in the 24-Hour Lab, imaged and set up 28 Dell 755 machines that were installed at COMTech, participated in the campus storage migration and the Exchange rollout project. All school labs and classroom computers were reimaged and software was installed using LANDesk. There was a 35-machine refresh in Oxendine Science Building, Room 1246, which I imaged and set up. I also imaged and set up 13 machines at SRMC. Currently, I am in the process of reimaging and touching all machines in labs and classrooms in preparation of the 2009 fall semester.

I attended Mac OSX training and received a certificate, Apple Certified Support Professional (ACSP), which has helped me accomplish much in my everyday work routine. I attended Microsoft Tech Ed 2008, Lab Man Conference 2008, VGeo training and LANDesk training, along with a number of webinars. All of the seminars, webinars and trainings have helped me to provide the best support possible for the campus and increased my knowledge of all aspects of information technology. This past year has helped me grow professionally and personally. Through all of the changes I have considered myself very fortunate to have experienced this.

Liz Cummings

I have been involved in a variety of projects and training over the past year. I have served as the project lead on the following projects: Faculty Refresh, Incident Management System, and Storage Migration of Harmony User and Application Files. I have participated in the planning, documentation,

testing and implementation of other projects, such as Exchange/Domain Rollout, Desktop Special Configuration, Konica Pilot Program and LANDesk. I have also attended seminars on LANDesk and McAfee to broaden my understanding and knowledge of each product.

The year has been a year of change and growth. We have adopted and implemented new systems, expanded our services and continued to strive to offer exceptional customer service. All this has been achievable because of the efforts of each and every DoIT staff member. It is the joint efforts of Applications Development, Client Services, Media Center and Networking that contribute to DoIT's continued success. I enjoy what I do. I am given the opportunity to sharpen and hone my leadership and technology skills daily. Every day provides a new challenge that I look forward to understanding and conquering.

Wesley Frazier

The 2008-2009 school year was quite a productive one for me. DoIT was able accomplish many large scale projects this past year, many for which I participated in on top of my normal day-to-day activities. I designed much of the documentation for our Active Directory/Exchange Rollout across the University, and did extensive early testing on our procedures for both Macs and PCs. I participated in converting and updating many of the machines for this project. I also took over much of the scheduling from Kristen Anderson when she moved to the Office of Advancement.

I was able to get Apple Certified Support Professional (ACSP) alongside a few other colleagues in our department. I wrote a small package of scripts for our Macs that accomplishes much of what Deep Freeze does for our PCs and built many of our images for our various Mac technologies on campus.

After switching our machines over to the domain, I created a

new set of images for our HP and Dell desktop machines. These images are quite versatile allowing a single image to be used on a whole range of models and have proven quite valuable. Most recently, I have modified these images again with some scripts I wrote, which enable the "wake on LAN" functionality to be enabled automatically the first time our machines boot. As I understand it, this functionality will be used in conjunction with LANDesk for future projects. Additionally, I have created documentation for various software packages and created some scripts that capture DNS data to help identify various network problems. I have worked hard with my colleagues on the aforementioned projects, along with other tasks too numerous to list here. I believe we have worked hard to lay down some exciting new technologies this year and look forward to building on that foundation next year.



Mary Graham

Over the course of the last year we have been involved in a number of things. The faculty computer refresh, Microsoft Office 2007 upgrade, Exchange/Active Directory rollout and the laptop migration are just a few. These projects are outside the normal "work orders" workload that we all manage each day.

I am very proud of the technology upgrades that we are implementing, even though they are often cumbersome and frequently overwhelming for the technicians and end-users. I am excited that the new implementations are moving us toward the cutting edge of technology. I look forward to becoming more creative and innovative as our technology capabilities soar.

Robert Hughes

I was active in planning for the rollout of Active Directory and Exchange and participated on a limited basis in the actual rollout. I attended training for the 3D software (vGEO) used to operate the Reissner 3-D Lab. Along with Daryl Burgwyn, I continue to provide maintenance and support for this facility.

I also attended Microsoft Tech Ed 2008 and gained a greater insight into the operation of Microsoft server and management systems. This has proved valuable as DoIT has worked toward full migration to a Microsoft infrastructure. I attended a one-day McAfee seminar and learned about the product offerings of a number of companies that deal with antivirus and various management packages.

I feel my largest accomplishment for this past year was moving LANDesk into production and realizing the return on the investment made in this system. LANDesk has been used to install a variety of software as well as other desktop management activities to include the ability for the Help Desk to remote control a computer for quick, efficient troubleshooting at the point of contact. The last, but not least, I would like to include in my accomplishment list is to get a Apple Certified Support Professional (ACSP) certification.

Wanda Hunt

During the past year, I enjoyed working during New Student Orientation providing information to and assisting students as a first point of contact for DoIT. I worked mainly with transfer and International students. I also was glad to be able to participate in the Student Online Payroll Pilot Project along with the LabTechs who work with me. It has been a wonderful improvement over the old method.

My area of Client Services handles ResNet issues pertaining to residential students' access to UNCP-provided Internet in on-campus housing, Village Apartments and University Courtyard Apartments. The LabTechs and I

have become better at troubleshooting students' connections via LAN and wireless, including working with the ports in the housing units. I received Macintosh OS X training and have been able to use some of what I learned to assist students who were having problems connecting to the Internet with a Mac. The LabTechs and I have taken some online training through Microsoft's site to be better equipped to assist students with using Microsoft Office 2007.

Melanie Jacobs

My accomplishments over the last year are all important to me. They include attending the Blackboard World Conference in Las Vegas which gave me the opportunity to learn more about Blackboard, see how others use the tools and bring that knowledge back to UNCP. After the upgrade to Blackboard 7.3, I offered trainings at varied times to allow part time and adjunct faculty to participate in the training introducing the upgrade. As a part of the Blackboard upgrade training, a new avenue was taken for professors in the Sociology and Criminal Justice Department who live away from campus to do the training in a webinar using Elluminate. These were held in the evening hours to accommodate their schedules. This was very important to these faculty members who were working to bring their programs online. In addition to the Blackboard training program, I coordinated an open lab day for faculty to bring course material to a lab to work while George Guba and I were there to assist. I led the efforts of a newly-formed Blackboard TaskForce Team. The team was instrumental in the problem-solving efforts of issues with loads, tests, etc. I prepared troubleshooting steps for users who were experiencing problems, and I communicated efforts to faculty, making my face known on campus and asking for feedback on the issues we were encountering. I was a key contact for several faculty on campus during this time.

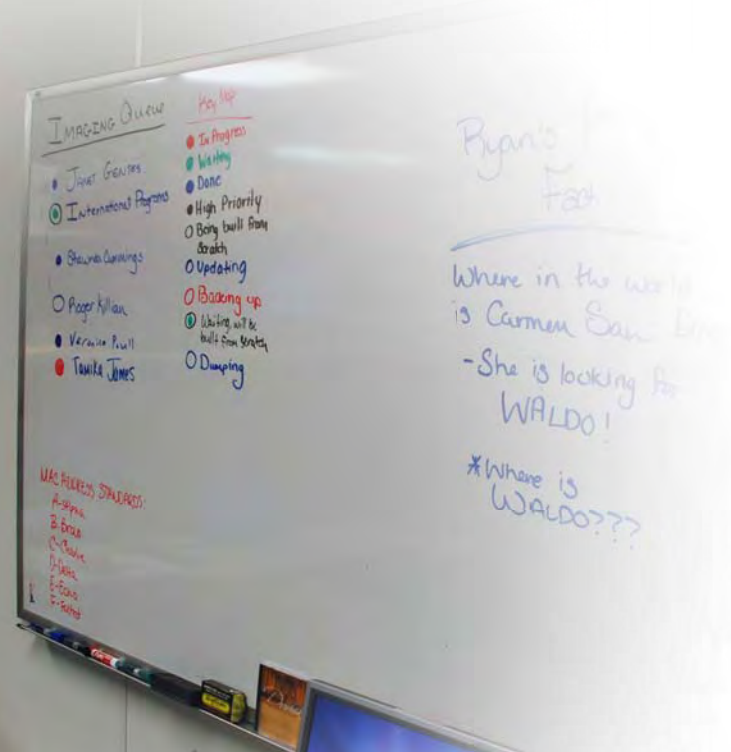
I had the opportunity to work as a team player on the implementation for the PIER system as a way to communicate emergencies to people on campus as well as the community. As our campus made a transition to Microsoft Office 2007, I produced and provided training doing overview sessions as well as providing specific training for each program in the

Microsoft Office Suite at different levels. These trainings have been very well received by the campus. As the campus faces the challenge of evaluating a new course management system, I provided overview sessions to the campus on Moodle in hopes of helping them to make their own observations of both Moodle and Blackboard for a final decision. Lastly, attending the Academix 2009 Conference at Duke University that focused on spurring change in teaching and scholarship through emergent digital learning environments gave me the opportunity to see new tools for distribution such as iTunesU, mobile devices and collaboration services. I also saw presentations that focused on how to deploy and support technology, successful strategies for faculty and administrative engagement, and a glimpse of future technologies. I am passionate about the work I do with faculty and staff on campus and helping to make them successful in their jobs as we all strive to stay current in the forever-changing world of technology.

Charles Kearney

Due to budget constraints, I was not able to take any classes or attend any conferences in the past year. I worked on the Outlook Exchange/Active Directory rollout, and I learned how faculty and staff use their computers and sometimes do not report problems that they have. During the time that I spent with them, I was able to answer questions not only about the rollout, but also general computer questions that they may have had about their system or software.

I have worked on the cleaning of computers in preparation for them to go to surplus while continuing to work at the Help Desk. We have recently been given the ability to remote access client computers, and this can save time from having to send someone to work on a computer when the problem can be fixed remotely. During the year I have been given more tools such as the Registration Troubleshooting and BraveMail Troubleshooting tools which provide greater assistance to the Help Desk in providing assistance to our clients.



Tabitha Locklear

As part of the DoIT team and as Lab Manager over the past year, we have been able to update the following several labs and classrooms:

- 178 computers “Dell Optiplex 755” in 24-Hour Lab, DSS, Old Main 238, teaching classrooms across the campus and the classroom and teaching labs in Oxendine Science Building
- 12 iMac’s in classrooms in Education Building
- 5 iMac’s Honors College
- 24 MacBook’s cart in Education Building
- Memory upgrade of 350 computers
- 59 lab refresh computers which include repurposed, but upgraded computers for COP, Village Lab, GPAC, Old Main 137, Multicultural Center, Writing Center and ROTC
- 28 “Dell Optiplex 755” in COMTech
- Deployed Office 2007
- 85 computers “Dell Optiplex 760” in Oxendine Science 1246, the Library Lab and SRMC (Nursing)

In addition to the computer lab and classroom upgrades, I was also able to attend several conference, trainings and webinars which include Mac OS Training, LabMan 2008 Conference at Minnesota State University, Mankato, Microsoft Tech Ed 2008 in Florida and the (VCI) Virtual Computing Initiative Conference in Raleigh. Webinars include Dell Microsoft Office 2007 Outlook, Ink Image Direct, Mathematica, Smarter Wi-Fi for higher education and Defining and Measuring Green Computing. I am very proud of what I have done and what we have accomplished over the past year in DoIT. I hope the upgrades and refresh meet everyone’s needs.

Michael Pruitt

Over the past year, I’ve spent the majority of my time getting to know our faculty and staff one-by-one as we prepared to change out two critical systems on campus. I assisted with the documentation and procedure used as well. Our old e-mail server Brainy is being replaced by the new Exchange server, and our Novell network is being replaced with Active Directory and Microsoft file shares on a SAN. This served as an opportunity to get familiar with our new systems as well as to learn even more about the quirks and smaller details of our previous servers and systems. As we have also assisted our users with connecting their cell phones to our e-mail server, I’ve also had an opportunity to become familiar with a fairly large array of smart phone operating systems.

By this point, everyone should be aware of at least the first change as our unfortunate downtime incident in October resulted in us moving everyone over to the new server immediately. Until that point we were going into everyone’s office one-by-one helping our users migrate their e-mail from Brainy to the new server, while making sure their software was up-to-date, secure and ready for our other upcoming changes. After that we continued to make our rounds, resuming our e-mail migrations as soon as the old server permitted. As I’m typing this, we’re now on the cusp of finishing both projects. The old e-mail server is offline; everyone has been migrated. Novell was shut down at the end of June, everyone’s familiar F: drive has been replaced with I: and departments had their shared folders on H: moved over to K:.

Also of no small note was the opportunity to participate in Apple training near the beginning of the last school year in July. I was able to learn more about Mac OS, in particular from a support perspective and am now an Apple Certified Support Professional (ACSP). I’m planning to continue this training course as well as take on others to build up my knowledge and demonstrate my desire to learn more. Because of this, I’m looking forward to additional challenges and projects to undertake with our department in the future. ■



BraveTechs team 2008-2009

Networking and Operations



After a difficult October due to e-mail server issues, Networking and Operations completed the migration of faculty and staff e-mail services to a high-availability Exchange environment.

Because of the Exchange implementation, the group was able to implement testing of voicemail to a new Microsoft Unified Messaging system replacing an aging voicemail system. These efforts also supported a rollout of Office Communication Server bringing increased communication capabilities including secure chat, document sharing and desktop conferencing. Unified Messaging implementation engaged a pilot group of users with these services moving to full production during fall 2009 semester. Students also received new e-mail services with a move to Microsoft Exchange Labs, a

hosted solution for increased services. This implementation also served to complete another PACE initiative.

Networking and Operations finalized the switch from Netware eDirectory to Microsoft Active Directory to create a modern and secure authentication infrastructure which included synchronizing eDirectory and Active Directory and implementing authentication for Banner, Blackboard, e-mail, Web pages and BraveWeb. In support of UNC system efforts, Shibboleth authentication was also established using the new Active Directory system.

Faculty, staff and students found increased storage capabilities along with

high reliability as the student.filer and faculty.staff.filer replaced Snappy and Harmony, older Netware servers. Faculty and students enjoyed using a new version of Blackboard 7.3 which was implemented in a new highly-reliable server infrastructure. Users also will enjoy new services as a result of the implementation of Podcast Producer in support of campus podcasting efforts. The installation includes new digital media storage for faculty and student projects as well as a finalized iTunesU site for faculty.

Speaking of high reliability, the Operations area completed the installation of a virtual server environment, another campus-initiated PACE initiative, to support MySQL, Moodle, Shibboleth and Wordpress applications. At the

same time, working with the UNC system on another Pace initiative, UNCP implemented remote backup solutions for Banner data and is working on a project with two sister campuses to explore the creation of an online disaster recovery site. Networking and Operations also completed a technology risk assessment to ensure appropriate security processes and systems for new enterprise systems and completed necessary facility upgrades and repairs for the data centers in Oxendine Science Building and Lumbee Hall. The facility upgrades included installation of additional cooling in the Oxendine data center, upgraded uninterruptible power systems (UPS) power supplies in both Oxendine and Lumbee and a re-working of the cooling system in Lumbee.

Tom Jackson, Associate Chief Information Officer and Chief Technology Officer

Kevin Pait

As I take a moment to reflect on the activities and accomplishments of this past year, I am both encouraged and optimistic about the state of network and communication systems at UNCP. Just a few years ago, the planning and preparation began for many major initiatives that would completely renew and transform some of the most fundamental IT services for our campus. These initiatives included the complete migration to new e-mail, voicemail, authentication and data storage platforms. This past year has seen the realization of the majority of these initiatives as these services have finally reached the production level and have been employed into use for the campus population. Our unit has planned and worked diligently to implement these services in a way that was both manageable and as least disruptive to campus as possible. I believe we have been largely successful in transforming and maximizing the potential of our core services while minimizing the impact on the valuable work being performed in offices and

classrooms across our institution. We have much more work to do in order to maximize the capabilities of our new systems and to customize them to the efficiency of our constituents. We will now set our minds to this task.

I have appreciated the efforts and attitudes of all who have been involved in these projects. The complexity of the tasks and the far reaching impact into every department and organization on our campus as well as outside agencies and systems has enabled me to grow professionally. My skills and experience in the areas of organizational awareness and communications have benefited tremendously and invaluable through the progression of these projects. I have very much enjoyed being a part of this transformation and am excited about the continuing work within the Division of Information Technology.

Chris DeSmit

When considering what the Division of Information Technology has been doing this last year, I am astounded by what we have accomplished. Almost every area has been improved. In our network realm, UNCP now offers wireless to most of our residential halls. All of our academic buildings are also providing wireless now. UNCP is now better suited to handle the networking needs of our student, faculty, and staff requests with the use of current bridging, wireless access point technologies. Lastly, being involved with so much that our department has been doing has helped me with to improve my time-management skills.

Terry Oxendine

I have been involved with several exciting projects over the last year and have had the opportunity to learn new technologies. One of the first projects was an upgrade of our course management system, Blackboard from v6.3 to v7.3. This project included upgrading from Sun's Enterprise servers to Dell's new blade server technology. Blade servers offer a number of advantages over conventional servers in terms of power, cooling and fast expansion. A blade server is simply a chassis with multiple servers each contained on its own card or blade. The servers share connections and power provided by the chassis thus reducing cooling and power costs. I believe this new technology will go far in advancing technology at UNCP due to easy manageability, high performance and the low cost of adding additional servers.

Another exciting project involving new technology, which I was a part of, was our server virtualization project. This project is being implemented using VMware's ESX enterprise-level virtualization product while again using Dell's blade server technology. Server virtualization is a way of running multiple operating systems (Windows or Linux) on the same physical servers, but it offers much more. High availability and scalability are two important features gained. If a physical server fails the virtual operating systems or VM's as they are typically called, can be moved to surviving physical servers. If performance problems develop and it is determined that more computing

power is needed, then additional servers can be purchased and the VM's can simply be migrated to the new servers. Virtualization is a new "buzzword" in the technology arena which will positively foster tremendous gains in availability, scalability, manageability, security and efficiency at UNCP.

Finally, a third project in which I had the opportunity to participate was our SAN storage project. Up until 2008 most of UNCP's data had been stored on internal disk drives located in standalone physical servers. Our new Storage Area Network (SAN) was first installed during the spring of 2008; however, the migration of data has continued throughout the year. Our new SAN has hardware components installed in two on-campus locations, and all data is written or mirrored in both locations. In addition, data can easily be moved between servers with little effort. With the installation of the SAN we have gained a tremendous amount of storage space as well as several important features including flexibility, availability, data protection, efficiency and high performance. I also had the opportunity to participate in a week long boot camp style training class on this new SAN technology which will allow UNCP to maximize its use of this technology.

Barry Graves

For this year ending June 30, I was involved with a variety of projects, including the installation/implementation of our 25TB Storage Area Network boxes, Virtual Servers, Blade Servers, Windows Active Directory, Windows Exchange, OneNote, Windows Communication Server, Dell Tape Library, Netbackup Enterprise application, Apple iPod servers and storage, Network Attached Storage boxes, MassComm's iNews Server, GPAC's Tickets Server, Facility Operation's new Work Order Server, Infirmary's Medicat Server and Business Services' new Odyssey Server.

Tony Chavis

My new personal growth and knowledge has mainly been around the new call manager system along with the old voicemail system. The new call manager system gives a little more flexibility but also demands more. I have

learned to know and complete the right steps to maintain service continuity. The old voicemail system is cumbersome due to storage limitations, but the new Exchange voicemail will solve these issues. This phase of the wireless project across campus is complete. Most of the residence halls and offices, along with all academic buildings, now have wireless networking. Installation and maintenance of the wireless network have been an enlightening experience. It has been a welcomed experience to learn this new network system and work with it. All in all, you call, and we haul. We cannot fail; we just DoIT.

Elaine Vesely

The increased demand for services really exploded this past fiscal year. It's difficult to completely cover in detail all the tasks and projects that I have been involved with. However, I will try to hit the highlights. First is the creation and assistance that I provided in the movement from our old legacy e-mail system to the existing Exchange 2007 Enterprise e-mail system that exists today. This Enterprise system currently consists of 1,158 new exchange mailboxes and 174 distribution groups with numerous mail contacts. Documentation was created, along with procedures and guidelines, to assist in the constant monitoring of the overall health/performance of the new Exchange 2007 environment. I also created the campus-wide antivirus software ePolicy Orchestrator VM (Virtual Machine) that deploys virus software across the campus along with the rollout of departmental enterprise software packages. A couple of examples would be the Music Department's Sibelius and Controller's Office Basset's Fixed Asset system. I managed the old legacy Novell servers, along with the setup/implementation and rollout of the new Microsoft Windows Servers. This consists of three Active Directory servers, two Hub transport servers and two Microsoft ISA (Internet Security and Acceleration) servers. These are seven servers out of fifty plus servers that I manage. In working to ensure quality, effectiveness and efficiency via 24/7 availability of our new premier systems and our legacy systems, my professional advancement has vastly increased in the area of security awareness. ■



UNC Pembroke Division of Information Technology

Application Development and Support

Tom Jackson, Associate Chief Information Officer and Chief Technology Officer

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The Application Development and Support area focused on upgrading Banner as well as several projects in support of various campus offices. Two major milestones include going “live” with Banner Advancement and a major upgrade in February to Banner 8.1 and Oracle 10g RDBMS, the latest version of Oracle database software. As part of the upgrades, Applications also upgraded the Operational Data Store (ODS) application to version 8.0 and deployed expanded support for Cognos, ReportNet and Banner reporting including training for University offices. Additional reporting was enabled by deployment of the Reporting Web Application (RWA) that is now beginning to see widespread use by campus financial managers. Additionally, the Application Development and Support area deployed a new online giving application for Advancement while completing campus payment card industry compliance efforts. These efforts included the development of training activities that will be deployed fall 2009.

To support faculty, Applications staff implemented an Advisor Midterm Grade application and a Faculty Class List application. To support students, in conjunction with the Registrar’s office, an online Student Withdrawal application was also completed. Users gained access to Application services through a new Electronic Forms application for data processing and report requests. Applications staff also refined our newly implemented Incident Management System. Finally, working in conjunction with Business Affairs and General Administration, the Application Development and Support area is providing technology system and application support for the Payroll Migration Project, a major project for UNCP.

Amanda White

Since starting here in April 2008, I have been surrounded by an incredibly smart and caring group of co-workers that have helped me progress in my knowledge and experience in the IT field. When I first arrived, I worked for several months coding the online request forms for the Application Development and Support in PHP. When those went live in October 2008, I

began working with Banner Student and my responsibilities have grown to Financial Aid and EMAS. I have also had a hand in creating reports for RWA (Reporting Web Application).

In January 2009, I began taking courses online from East Carolina University towards a Master’s degree in Software Engineering that has helped me learn the concept of Object Oriented technology and how it is used to design reusable, easily modifiable code in PHP. This knowledge has given me the ability to better understand the Model View Controller design standard that we want to implement on PHP applications through Banner Self Service. Some projects I’ve participated in using this method include the Faculty Class List Extract and the Advisee Midterm Grade. I hope that by continuing to pursue this degree I will develop better project management and development skills.

Dawn Albrecht

It’s been a very exciting year for us all. So much going on and yet we continue to have a harmonious environment where we learn and grow from one another. Some of the tasks I have been specifically involved in are as follows. With the Payroll project underway, systems needed to be cloned, data modified, scripts written to work with the data, and various other tasks to ensure the payroll team had TBAN8 and PPRD ready for working and testing. RWA was released to the campus and is now used for Budget information, student, HR, Financial Aid reports and others. It seems to be user friendly for everyone. The Incident Management System (IMS) was released for its first round within DoIT, and other than minor modifications so far, seems to be working correctly. I continue to work with Finance and have begun to learn Account Receivables this year as well. I have learned more about Unix from Terry Oxendine and Tom Jackson, which has helped me with my problem-solving capabilities. I have learned more about past programs supported such as the cashiering application and the “Old” EMAS Bridge that facilitates functionality to the College Foundation of North Carolina (CFNC) and EMAS. I look forward to continuing to work with our notable department and area.

Delores Lowry

I am proud to say that I have worked for this wonderful University since August 1975 in the same department. It has been called several different names – Data Processing, Computer Center, University Computing and Information Services (UCIS) and now Division of Information Technology (DoIT). Just to mention, my service went back a little further. I was a workstudy student from fall 1972 until graduation in May 1975.

When I was hired full-time, the staff consisted of three people – a Director, a Computer Programmer and a Data Entry Operator. Amazingly, I have witnessed first-hand the growth of this department – from three to well over 30 employees. I have also seen the department become a Division with five units – Application Development and Support, Client Services, IT Planning and Budgeting, Media Center and Network and Systems Administration.

My responsibilities have been numerous throughout the years. I now serve as a team leader and mentor to the Application Development staff with some management responsibilities. I have been very involved in the implementation of the Banner project. The last module to migrate from the legacy system was Banner Advancement. This happened in August 2008. The past seven or eight years have been very long.

The Application group has grown from a staff of three or four to nine. I guess the thing that I am most proud of is that after 8,160 days, I can finally say to my wonderful team, “Here, you do it,” without feeling guilty.

John Hays

In coordination with Counseling and Testing, the Center for Academic Excellence and Registrar’s Office, the student

placement testing process was revised. I assisted in the development and refinement of the new process to increase efficiency and to eliminate unnecessary tests and processes. Because student records are now in Banner, a totally new process of extracting basic data for new students, which is expected during the Orientation periods, has been developed and put into practice. The previous standard test for Mathematics course placement has been retrained, but the basic student details included in the replacement reports for advisors is now extracted from Banner. The previous test used for English course placement has been replaced with an evaluation of the student’s SAT, ACT and/or high school GPA scores from Banner. The resulting DoIT processing changes have been completed and in use for most of this year.

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The system I developed to maintain records and provide financial reports for the Game Room in the University Center continues to meet the requirements even after several changes were made to the equipment and network system during the year. Thanks to Ms. Beverly Lowry, technical problems with the software and equipment are rare and quickly corrected.

With the continued assistance of staff in the Registrar's Office, our Degree Audit Reporting System (DARS) continues to be refined while still providing the needed information to our students for use in graduation planning. Several new features have been incorporated during the year, which greatly improve our ability to advise students through all phases of their time here. As with any IT system, additional features are under development or being tested in our continuing efforts to increase service to our students and

provide tools and information to their advisors. My efforts to fine tune this DARS will continue in coordination with the Registrar's staff.

Although Financial Aid has been moved into Banner, one other relatively small system dealing with College Work Study (CWS) continues to be used to assist in tracking the hours and wages of our student workers. This CWS system is an in-house developed system, and I continue to provide assistance and technical support as needed to the Financial Aid Staff. For the past year, the support consisted mainly in making sure that new student information in Banner was available in the separate CWS system. My thanks to the staff in the Financial Aid Office for their efforts in making this system work as smoothly as possible.

Jonathan Lowery

During my time at UNCP, I have been mostly involved with Advancement. I have had the opportunity to work with a wonderful team here at DoIT and also interact with a wonderful group of people in Advancement. Since Advancement has gone live with Banner, I have had the opportunity to work within the Student Module of Banner. I'm continuing to learn more about their processes, as this will allow me to provide better support to a different group of users.

Here are some of the projects that I have been a part of:

- Advancement going live with Banner
- PIER (Public Information Emergency Response) – This system allows the University to contact the right people, during the right time of an emergency.
- T2 Flex – This is the parking system that the Department of Police and Public Safety moved to.
- RWA (Reporting Web Application) – This is an application that is used by all of Applications to provide departments a more meaningful way to run their reports.

- BigPulse – This application allows the University to conduct polls/surveys for a select group of people. Currently, the Office of Student Life uses it for Homecoming elections and the faculty use it for Faculty Senate elections.

Pam Chavis

During my two years of employment at UNCP, I have been blessed to work in a wonderful department. DoIT consists of five separate divisions; however, we are all one family. Members of DoIT realize it takes teamwork to provide UNCP with our best possible services. Everyone is willing to share their knowledge, creating the type of environment where we can learn from each other and step in to help when needed.

I have worked with Financial Aid, Student and the Human Resources Modules of Banner. I'm continuing to learn more about the business processes for each of those areas. This will help me provide better support and technical assistance when needed. During this past year, I have had the chance to expand my current skill set to include SQL Server, ASP.net and PHP. The growing list of projects we have provides the challenge of not only learning new technologies, but also enhancing and improving upon what we already know.

Some projects I have worked on and/or manage are:

- EMAS bridge – which brings applicants over into Banner from EMAS, a program that the Office of Enrollment Management uses to store applicant data.
- RWA (Reporting Web Application) – an application to help various offices retrieve report data themselves on an as needed basis.
- Online Giving – An online system allowing alumni to give to UNCP online.
- ESL (English as a Second Language) – Entering students enrolled in ESL classes into Banner.

Tammy Locklear

I became a part of UNCP in October 2006 in the Human Resources Department where I learned a lot about the HR applications and HR's processes. I became a part of DoIT in April 2008. Since then, I have learned that this was the best move that I could have ever made. To be able to work with such a wonderful and intelligent group of people has been a blessing to me. Everyone is willing to share their knowledge and to lend a helping hand when needed.

Over the past year, I have:

- Become very familiar with SQL
- Become familiar with the account receivable/student/financial aid applications. I have also learned some of their processes to help me better support these areas.
- Helped with the Payroll Project
- Helped with account receivable reconciliation
- Learned RWA
- Learned Banner security

Sue Gaston

In my role, I continued to provide primary support for Cognos Reporting throughout the year. I attend the Cognos Conference in May 2008. Upon my return, I was tasked to develop training material and provided three very well received classes on Cognos Report Studio – How to create reports. In support of our Banner 8 – ODS 8 – Cognos 8 upgrade and deployment, I converted and tested over 500 reports used by the functional departments.

Due to budget constraints and the need to reduce our operating overhead/costs, I have been assisting Tom Jackson with determining what resources will be needed to install, configure and implement Microsoft SQL 2008's Microsoft Reporting Services. ■

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```
#include <iostream>
using namespace std;
class CVector {
public:
    int x,y;
    CVector () {}
    CVector (int,int);
    CVector operator + (CVector)
};
CVector CVector::operator+ (CVector pa
CVector temp;
temp.x = x + param.x;
temp.y = y + param.y;
return (temp);
```

UNC Pembroke Division of Information Technology

DoIT End of Year Report

on 2008-2009 Goals and Objectives

GOAL 1: Continue developing and maturing of the Information Technology Division into a “world class” organization.

Objective 1a: Reduce the number of technology-related issues addressed in crisis mode by 80 percent.

Action items:

- Structure IT so lines of responsibility are clear and “hand off” processes between departments are well defined.
- Client Services has effected many important technological changes on campus from the way in which both students and faculty/staff access e-mail to the delivery of support services, as well as a host of other introductions and upgrades in between.
- Reorganized the Applications Development area leadership to flatten management hierarchy.
- Continue investment in high quality, reliable IT infrastructures, eliminating old technologies and reducing the number of technologies supported.
- Implemented new VoIP call center, replaced e-mail services, implemented Active Directory authentication, upgraded to Office 2007, upgraded system software and virus protection, implemented remote desktop tools.
- Provide staff training to optimally support the IT infrastructure.
- Melanie Jacobs has provided an extensive menu of training sessions as well as many opportunities to attend. She has provided multiple overviews and task-specific sessions, in addition to beginners and advanced level sessions, on Blackboard, Office 2007 Suite, Respondus, Dreamweaver and Turnitin, and many attendees have responded favorably by attending.
- Media Center staff received certification in both Dell and Apple warranty repairs

- Acquire and effectively use system monitoring tools and establish an operations monitoring center.
 - Implemented LANDesk and purchased Microsoft monitoring software.
- Use an appropriate mix of in-house and outsourced systems and services. Automate whenever possible.
 - Implemented server virtualization for in-house hosting and facilitated a number of hosted solutions including online course evaluations and online voting.
- Set and maintain hardware and software standards, including standardizing an IT “tool set.”
 - Established a new standard for telephone conferencing and expanded video teleconference capabilities.
 - Installed new blog software Moodle course management software.
 - Established certified warranty repair center for Dell and Apple Computers in the Media Center.
- Implement and follow an IT-wide change management process to plan, implement and monitor system and infrastructure changes.
 - Implemented new processes and reports to better determine budget data within DoIT. The result has been in greater efficiency in decision making and in tremendous savings in software and hardware management costs by close monitoring of services and through technology consolidation efforts.
- Effectively monitor and analyze the IT workload through Help Desk reports and other metrics to be more proactive in preventing problems.
 - Efforts are underway with the implementation of the Incident Management system.
- Form new and effective partnerships across campus for mutual support and information flow.
 - Accomplished with a number of offices to include Facilities

Management, Business Services, Livermore Library, Enrollment Management, Advancement and University and Community Relations.

- Communicate effectively across the IT organization and the University.
- Increased the use of e-mail updates and also implemented DoIT Today, the IT newsletter.

Objective 1b: Provide effective IT leadership to UNCP based upon information technology best practices.

Action items:

- Free up 80% of staff “fire fighting” time
 - The migration away from Netware is an excellent example where planning virtually eliminated last minute surprises and technology issues requiring emergency intervention.
- Provide technology staff time and resources to, in a focused way, investigate new technologies, directions, etc. that can enhance the University.
- Client Services, under Liz Cummings’ leadership, installed over 147 new faculty and staff computers in the last year in addition to completing special requests and standard work orders. Additionally, an amazing 200+ computers on campus received additional memory and were upgraded to Windows XP, as well as over 200 new computers installed in the classrooms and labs. Tabitha Locklear and Daryl Burgwyn accomplished these tasks and created images for machines in order to have all the appropriate software available in departments, classrooms and labs.
- Managed the disposal of over 300 old, no-longer-functional, machines. To ensure data security of computers no longer needed by the University, over 300 machines have been wiped of data and prepared for surplus .
- Further identify critical operations in the University where IT can make a positive impact.

END OF YEAR REPORT ON 2008-2009 GOALS AND OBJECTIVES

- Have identified multiple areas where technology can assist, including controlling building access, student wake-up services, online voting, online course evaluations, quality metrics for online courses, expanded interactive video capabilities, and expanded personal technology services such as unified messaging and expanded e-mail services, secure chat and other communication strategies.
- Conducted faculty pilot study on e-text readers as a potential replacement for text books. Ordered units, organized project and developed recommendation report.
- Further develop partnerships with campus offices and departments, helping them to maximize the use of our technology offerings.
- Partnered with Enrollment Management to rework technology aspects of New Student Orientation and also implemented technology training and e-mail setup for new students during the session.
- Provide University staff with a vision for how IT operations and processes can be improved through presentations, focus groups, user groups and workshops.
- Client Services has been assisting Networking with moving faculty and staff files to the new SAN Storage Server. No one is happier to see Harmony replaced than Client Services, especially the Help Desk. We welcomed with open arms facstaff.filer with its reliability, redundancy, and 1GB space per user.
- Media Center staff worked with University Center staff to become self-supporting for event setup and operation of media equipment.
- Implement a well-coordinated IT consulting service for the campus.
 - Negotiations for a new campus cable agreement is a good example of providing successful consulting services to multiple offices leading to a success contract negotiation.
- Mature IT management and leadership team processes to empower and support both internal and external customers.
- Facilitated the UNC CAUSE conference, DoIT staff handled conference registration and provided extensive conference support.

- Andrea Branch of the Media Center was named Chairperson of the UNCP Staff Council.

Objective 1c: Create a genuine “team-based” organization within Information Technology.

Action items:

- Place technology individuals where they can best use their strengths. Continue to get the “right people on the bus” and finding the “right seats” for technology staff.
- Formed Banner Desktop Support Team between Applications and Client Services
- Provide ongoing development opportunities for staff to enhance expertise and skills
 - Information Technology Infrastructure Library v3 training for Liz Cummings, Cindy Saylor and Tom Jackson
 - Apple Support Essentials training for Crystal Barton, Daryl Burgwyn, Wes Frazier, Rob Hughes and Mike Pruitt
 - NetApp SAN Management training for Terry Oxendine and Kevin Pait.
 - VMware training for Kevin Pait
 - 3D software training for Rob Hughes and Daryl Burgwyn.
 - Brock Brayboy was certified for warrant repair of Apple and Dell Computers.
- Reward team efforts and individuals who effectively work together.
- Provide meaningful opportunities for staff input.
 - Open forum at DoIT Retreat
 - Applications drafted Mission Statement
- Expand use of task forces and IT governance to provide a wide range of campus involvement in developing recommendations.
- Maintain a safe environment where staff can try new things or take risks that have the potential to enhance our operation or University.

Objective 1d: Be considered one of the top campus operations

Action items:

- Move DoIT into Carter Hall and implement professional office practices.
 - Completed, work remains to be completed on the external appearance of Carter Hall.
- Ensure the campus receives timely, consistent information concerning technology.
 - Began DoIT newsletter, published 3 times per year, also Cindy Saylor has begun regular Tech update e-mails to campus.
- Effectively use industry best practices for technology systems and support.
 - Liz Cummings, Cindy Saylor and Tom Jackson became ITIL v.3 Foundations certified, and Crystal Barton, Daryl Burgwyn, Wes Frazier, Rob Hughes, and Mike Pruitt earned Apple Certified Support Essentials 10.5 certification, Brock Brayboy certified for Apple and Dell computer repair.
 - NetApp SAN Management Training for Terry Oxendine and Kevin Pait
 - VMware Training for Kevin Pait

GOAL 2: Effectively and efficiently implement Goal 3 of the Strategic Plan for UNCP to improve the access, application, and quality of information and computing technologies utilized by the University and the region to optimize and exchange intellectual capital.

Objective 2a: Develop a comprehensive process to evaluate and address computing and information technology needs of students, faculty, and staff and to provide resources (both human and material) and training that supports continuous and stable day-to-day operations and new technologies as they become available.

Action items:

- Continue implementation of the IT governance structure with the creation of an Academic Advisory Committee for IT standards.
 - Accomplished due to agreement with the Academic Services Sub-Committee to serve in this capacity.
- Work with the IT hierarchal committees to make decisions, create policies, etc. and communicate results to faculty and staff.
 - Met regularly and updated Faculty Senate, worked with Academic Service Committee and the Academic Affairs Committee of the Faculty Senate on the Moodle/Blackboard issue.
- Facilitate better communication with faculty and provide easily-accessible foundational documents to lessen the digital knowledge base divide.
 - Conducted presentations on budget outlook and technology refresh, and also plans for next year.
 - Conducted session on e-mail issues and steps to resolve the problems
- Seek faculty input and feedback on ongoing technology upgrades and new installations.
 - Accomplished, faculty input of faculty computer refresh as well as committee input on classroom technologies. Also sought and received recommendation from the Campus Course Management system Committee and also the Blackboard Advisory Committee.

- Make available an online listing of all campus licenses of software for faculty and staff referral.
 - Not complete, partial listing on DoIT Web site.
- Make available an online FAQ for users to consult.
 - Not complete, partial FAQ on various subjects available on DoIT Web site.

Objective 2b: Develop criteria by which technology-based teaching, scholarship, and service are recognized, measured, and evaluated for purposes of faculty promotion and tenure.

Action items:

- In conjunction with the Teaching Center engage Faculty Governance to assemble necessary committees or task forces to facilitate the development of criteria for consideration of technology integration within the tenure and promotion process
 - Not Accomplished
- Promote the creation of formalized documentation to include technology integration in the tenure and promotion process for consideration by faculty governance
 - Not accomplished
- Meet with academic departments as feasible to open the lines of communication and assess technology needs.
 - Accomplished
- Create an open forum for communication with academic departments and faculty and staff.
 - Completed, IT leadership meets once per semester with the academic Deans and their department chairs to discuss technology.

Objective 2c: Encourage and provide support for the integration of computing and information technology into the curriculum.

Action items:

- Create an Instructional Technology Center to assist with faculty training and media development support.
 - Not accomplished due to lack of funding
- Work with the Digital Academy, The Teaching Center, Media Center, and Distance Education to further refine service offerings and the transition between service providers to create a “seamless” technology support environment for faculty.
 - Partially accomplished. Much work yet to be done. Relationships are being built.
 - Published article in Innovative Technology in Higher Education on technology support for faculty teaching online courses
 - Facilitated Distance Education subscription to “Quality Matters” a metric to measure the quality of online courses.
- Continue efforts at creating standard classroom technology configurations which include simple to use switching and laptop connections.
 - Standard switching configurations have been determined and have been installed in multiple classrooms. Oxendine has the largest number of remaining classrooms yet to be converted.
- Install technology teaching stations in seven classrooms in Jones Health and PE Building.
 - Completed by the Media Center.
- Improve classroom technologies including installing new sound systems or refreshing existing teaching technology in selected classrooms in Business, Education, Dial and Oxendine
 - Installed Smartboards, upgraded sound systems, projection systems, control systems and cabling in multiple classrooms. The Oxendine classroom refresh is about 35% completed and is waiting upon the

availability of additional funding. All other classroom projects were completed by the Media Center.

- Improve and expand technology infrastructure to better support teaching and learning activities such as podcasting, virtual reality, and online communications such as Web conferencing.
 - Implemented VMWare technology infrastructure
 - Implemented local Moodle instance
 - Implemented Blackboard v7
 - Implemented BraveMail (Microsoft ExchangeLabs hosted e-mail)
 - Implemented Shibboleth to support UNC Online
 - Installed Podcast Producer infrastructure
 - Installed Wordpress application
 - Migrated faculty file services to SAN – provides expanded access and supports both Mac and Windows
 - Migrated to Microsoft Active Directory – supports central authentication for Macs

Objective 2d: Develop a policy and plan for equal access to informational and instructional technology for all members of the University community

Action items:

- Work with appropriate IT Governance to begin policy development and to refine existing policies.
 - Refined Banner Purpose Document and redefined role of Banner Steering Committee to meet GA accounting standards
- Engage Governance advisory structure to develop standard software and hardware configurations for faculty and staff.
 - Classroom technology standards were developed by the Arts and Science Technology Committee. Standard used to influence the upgrade of Oxendine Science Classrooms.
- Continue efforts at initiating a student computer requirement.

- Not accomplished
- Continue development of a “standard” slate of services for faculty, staff and students to encompass the majority of user needs with technology including shared storage, remote access, robust communication tools, and simple, yet secure authentication processes.
 - Collaboration with NC State University is allowing UNCP to access software without physical presence. Our faculty and students are now using their virtual computing environment to access our licensed software via Shibboleth authentication. The first success was EcoBeaker/ EvoBeaker for Biology 101 classes this past spring. Work continues on this endeavor to offer more software applications via this access.
- Provide professional and reliable technology assistance in the most efficient and timely manner as feasible, while making the experience as seamless as possible.
 - Client Services began using Desktop Remote Control to access individual client computers in order to install or update software and assist with troubleshooting and other issues in real time. This ability has greatly improved DoIT’s response time for these types of requests.
- Take advantage of training opportunities to hone internal IT customer service skills and technology skills through online tutorials and courses, as well as face-to-face workshops and conferences.
 - Client Services staff have been educated and certified in a number of technology and services areas, and have shared their experiences with others. For example, Liz Cummings and Cindy Saylor became ITIL v.3 certified, and Crystal Barton, Daryl Burgwyn, Wes Frazier, Rob Hughes, and Mike Pruitt earned Apple Certified Support Essentials 10.5 certification. The Client Services staff has been active in attending seminars, workshops and conferences in order to learn more and support further. Melanie Jacobs attended the Blackboard International Conference; Melanie and Cindy Saylor attended AcademiX 2009 for which Cindy also attended a Podcast Producer workshop. Cindy and

Tom Jackson presented at UNC Cause 2008 “Adventures in Student E-mail”. Liz Cummings, Robert Hughes, and Daryl Burgwyn attended a workshop on LANDesk to learn more about the functionality of the application in order to leverage more return on the investment.

- Advise clients to contact the Help Desk for assistance so that requests are assigned to the most qualified staff and the process is streamlined through one area.
 - Client Services closed 4,376 work orders in the last year precipitating from many more phone calls and e-mails to the Help Desk, many of which were resolved at the time of contact. An incredible Help Desk staff of Wesley Frazier, Crystal Barton, Mary Graham and Charles Kearney, with additional assistance from a talented BraveTech staff assisted many of you on a number of occasions during some smooth and bumpy technology issues.
- Implement an Incident Management system to track work order requests and allow follow-up work orders for feedback and satisfaction.
 - System has been implemented under phase I, Phase II is expected this fall with roll-out to campus of the ability to input and track tickets online.

GOAL 3: Provide stable and reliable network and enterprise technology systems to support the effective and efficient operation of institutional processes.

Objective 3a: Provide a stable and current technology infrastructure to support University operations.

Action items:

- Complete migration from eDirectory to Active Directory to create a modern and secure authentication infrastructure.
 - Implemented Novell Identity Manager to synchronize eDirectory and Active Directory
 - Implemented Blackboard v7 authentication via Active Directory
 - Implemented BraveWeb Password Reset in Active Directory
 - Implemented Shibboleth authentication and attribute lookup in Active Directory
 - Implemented Banner/Active Directory attribute interface
 - Implemented CIFS SAN services with Active Directory authentication
 - Migrated faculty, staff and student individual file services to CIFS SAN services
 - Migrated systems and applications to Active Directory authentication, including BraveWeb, Banner Self Service, and the University Web server.
- Complete migration of faculty and staff e-mail services to Exchange environment.
 - Implemented high availability Exchange environment
 - Migrated faculty and staff e-mail into Exchange
- Migrated student e-mail to hosted solution for increased services and to complete another PACE initiative.
 - Implemented BraveMail (Microsoft ExchangeLabs hosted e-mail)
 - Implemented Banner/AWD/BraveMail interface
 - Implemented BraveMail Troubleshooting Tool

- Migrated voicemail to Microsoft Unified Messaging replacing the aging voicemail system.
 - Implemented Unified Messaging pilot group
- Support rollout of Office Communication Server and inform campus of increased communication capabilities including secure chat, document sharing and desktop conferencing.
 - Implemented systems and have rolled-out services to pilot group including Chancellor and Provost. Services will be moved to full production during fall 2009 semester.
- Implement UNC Alliance remote backup solution to complete another PACE initiative
 - Implemented remote backup of Banner database
- Working with sister campus to implement a “hot” disaster recovery site as part of another campus initiated PACE initiative
 - Now have Banner data backup automatically performed and stored at remote location.
 - Secured services of retire faculty member to research grant opportunities, several opportunities have been identified and a preliminary report is being written by the faculty member.
- Complete migration of targeted Banner infrastructure to MetroCluster storage area network to increase redundancy and reliability
 - Not accomplished.
- Complete technology risk assessment to ensure appropriate security process and systems for new enterprise systems and in response to IT Audit.
 - Technology assessment performed by NWN, many recommendations implemented.
- Complete implementation of the virtual server environment to include moving BraveWeb application servers in a virtualized environment as part of another campus initiated PACE initiative

- Implemented VMware environment in Oxendine and Lumbee data centers
- Implemented MySQL database server in VMware
- Implemented Moodle application server in VMware
- Implemented Shibboleth application server in VMware
- Implemented Wordpress application server in VMware
- Complete necessary facility upgrades and repairs for the data centers in Oxendine and Lumbee data centers
 - Installed additional cooling in Oxendine data center
 - Upgraded UPS power supplies in both Oxendine and Lumbee
 - Reworked cooling system in Lumbee
- Complete implementation of Podcast Producer in support of campus podcasting efforts and include digital media storage for faculty and student projects as well as finalize iTunes U site for faculty.
 - Implemented Podcast Producer infrastructure
- Complete migration to Blackboard 7.3, inform and train campus users in the new system, prepare for migration to Blackboard 8.x in 2009.
 - Implemented Blackboard v7 in high availability environment
- Migrate remaining SQL Server databases to SQL Server 2005
 - Not accomplished
- Complete LANDesk/Active Directory integration for greater efficiency in determining inventory, resolving issues, and for audit monitoring processes.
 - Many person-hours have been spent installing LANDesk, getting machines capable of running it and creating scripts to perform tasks
- Complete migration of Domain Name and DHCP Services to new servers
 - Not accomplished
- Continue gradual introduction of roll-based network access to support end-user access to necessary campus technology resources.

- Planning has been accomplished in anticipation of Network Infrastructure upgrade funding in 2009-2010

Objective 3b. Support functional offices in the implementation and continued development and support of enterprise applications.

- Implemented Advisor Midterm Grade application
- Implemented Faculty Class List application
- Implemented Student Withdrawal application
- Migrated Student Directory Privacy Flags application to new server environment
- Implemented Electronic Forms application for data processing and report requests

Action items:

- Place application analyst in functional offices two days per week for observation, consulting, and sharing of information and services.
 - Not accomplished due to staff turnover
- Complete Banner ODS 3.2 upgrade to ensure the access to current features and services from SunGard
 - Not accomplished due to move to the RWA and other methods for reporting services
- Deploy expanded support for ReportNet and Banner reporting including finalizing Cognos 8.2 ReportNet upgrade and training functional offices in its use.
 - Migrated to Cognos ReportNet 8.2
 - Implemented RWA for financial reporting
 - Expanded RWA to additional Banner modules
- Finalized Banner Advancement and put into production.
 - Completed implementation of Banner Advancement

- Complete Banner winter Financial Aid upgrade in support of Business Affairs
 - Completed implementation of winter Financial Aid upgrade
- Working in conjunction with Business Affairs and General Administration, provide technology system and application support for the Payroll Migration Project.
 - Provided draft Third Party Access Agreement
 - Provided Development and Test Banner instances to Payroll Project Team
 - Provided Service Level Agreement for hosted Banner instances
- Implement Banner 8 in conjunction with General Administration efforts
 - Migrated to Banner 8.1
 - Migrated to Oracle 10g RDBMS
- Implement Banner ODS 8
 - Implemented to ODS 8.0
 - Migrated ReportNet reports to ODS 8.0
- Implement Online giving application for Advancement
 - Implemented oPAY/uPay infrastructure
- Redesign and implement AWD database in Oracle
 - Not started
- Redesign and implement Banner/AWD interface
 - Not started
- Redesign and implement AWD/Blackboard interface
 - Not started
- Redesign and implement AWD/Active Directory interface
 - Initial steps taken to use Active Directory for log-in credentials for BraveWeb, • Student e-mail, the Main Web Server, and Blackboard
- Complete Bookstore Payment Card Industry compliance efforts
 - Moved Bookstore POS card processing to analog swipe devices
 - Moved Bookstore online card processing to hosted service
- Complete remaining Payment Card Industry compliant tasks
 - Moved GPAC POS card processing to analog swipe devices
 - Resolved remaining policy and procedures issues
- Implement annual Payment Card Industry training
 - Under development as part of comprehensive electronic security training for delivery in fall
- Perform Disaster Recovery to ensure quick and effective restoration of services.
- Requested, managed and received updated Disaster Preparedness plans from campus offices. Updated the DoIT Emergency Response Plan ■



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.

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