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| Responsible Person | Vice Chancellor for Administration and Finance  
                        Rick Niswander  
                        Associate Vice Chancellor and CIO  
                        Joe Norris |
| Item Description | ITCS Year in Review Report |
| Comments         |                      |
| Action Requested | Board Approval       |
| Disposition      |                      |
| Notes            |                      |
In September 2010, I was honored to be selected as East Carolina University’s Chief Information Officer (CIO) and leader of the Information Technology and Computing Services’s team. The highly-skilled technical staff, IT managers, and student employees in ITCS are among the best I have seen in any organization. Their creativity and hard work has and will continue to transform the way we work, live, and learn at ECU. Moreover, our partnerships across this university and the willingness of departmental and divisional leadership to collaborate is unparalleled at other institutions. It is because of these partnerships and the shared leadership at ECU that we are able to successfully accomplish so much for the ECU community.

This past year proved successful for ITCS as we completed a myriad of projects in support of the five strategic goals of the university. I invite you to review this 2010-2011 Year in Review that details our accomplishments, efficiency and effectiveness in the areas of development, operational delivery of services, delivery of learning technologies, and compliance.

A few of our most noteworthy successes include:

• Analyzing ITCS’s value and financial performance over a five-year period to identify services and priorities where we can better serve the university community and in preparation of an increasingly constrained budget. The “Financial and Human Resources At a Glance” on page 4 provides details of our review. I am proud to affirm that ITCS has succeeded in providing high-quality, diverse technologies to our growing university population despite significant budget cuts and fewer personnel.

• Producing a solid information technology (IT) strategic plan—the first in more than seven years—to guide our future priorities. As a progressive IT organization, we regard the strategic plan as a “living” document with room for flexibility.

• Overhauling the underlying infrastructure of all our major administrative systems—Human Resources, Finance, and Student—to meet the challenges of a rapidly-evolving campus over the next five years.

• Upgrading our learning management system—more than five years old—to the latest version that gives on-the-go faculty and students access to their courses and content on a variety of devices including iPhone, iPod touch, iPad, Android, and BlackBerry smartphones.

• Developing a social media regulation that was submitted to the university policy committee for approval. The proposed regulation will serve to educate and advise faculty, staff, and students about the importance of responsible online communication, while minimizing risks associated with the use of social media. We are currently laying the groundwork for a supported campus-wide social media tool that positions ECU alongside other innovative leaders capitalizing on an active social media presence.

As your CIO, I am eager to face the challenges that lie ahead, promote innovative technologies that lower costs, and continue to improve services in support of ECU’s excellence in instruction, research and public service.

Joe Norris  •  Chief Information Officer
East Carolina University
Financial and Human Resources At a Glance

THE LANDSCAPE

- Over the past five years, university expenditures have increased 30%, while ITCS operating expenditures have only increased 11%.
- Faculty and staff across the university have increased 12% over the past five years, while full-time students have increased 15%.
- ITCS operating expenditures decreased in 2010 to the same levels as 2008.
- ITCS averaged $5.4 million per year in reallocation funds over the past five years, which enabled large-capital projects and increased future fixed costs.
- With the slow increase in operating dollars and the increased use of reallocation funds, increased strain was placed on operational funding.
- In 2010, ITCS employed a total of 189 full-time staff members. Over the past five years, we have lost 5 positions in Infrastructure, 3 in IT Security, 4 in Academic Computing, 3 in Desktop Technologies Support, and 2 in IT Administration. A total of 17 positions were lost, whereas 5 positions were added to Administrative Systems and we gained 10 positions through the Academic Outreach merger with ITCS.
- IT spending is 4% of total campus spending, a decrease of 1% since 2008.
- Over the past five years, reallocation expenditures have fluctuated from 2% of the operational expenditures to a maximum of 34%. This year, we received 22% of our expenditures in reallocation funding.
- While funding and personnel have decreased since 2006, the ratio of desktop technologies support staff to the number of desktops has increased from 1:403 in 2006 to 1:579 in 2010, an increase of 44% over a five-year period.
- The ratio of IT Help Desk staff to the number of faculty and staff has increased from 1:564 in 2006 to 1:812 in 2010, an increase of 44% over a five-year period.
- The total number of IT staff to the total number of faculty and staff has increased 8% since 2006 from 1:26 to 1:28.

Despite the reduction in ITCS funding and staff, and the increase in university faculty, staff, and students between 2006 and 2010, we have experienced significant growth in:

- data storage of 2614%
- video streaming of course lectures of 220%
- ecuBIC reports of 114%
- Blackboard courses of 85%
- technology-enhanced classrooms of 79%
- servers of 79%
- e-mail accounts of 53%
- Banner security requests of 47%
- network ports of 23%
- ECU-owned desktop computers of 24%
- Help Desk calls of 8%
For the first time in seven years, ITCS is following an updated strategic plan developed by a cross-campus committee of university representatives. The strategic plan will be updated yearly to create a realistic living document that reflects the changing needs of the university community. Short-term strategic priorities are to:

1. Enhance technology best practices to enrich the student learning experience.
2. Increase professional development opportunities for faculty to advance the use of technologies that support an environment conducive to teaching and learning.
3. Anticipate and respond to opportunities that support student success via vendor partnerships.
4. Partner to develop and fund a model to use technology to effectively support the university’s research agenda.
5. Ensure information technology is in compliance with ECU policies and industry standards.
6. Continue to support an efficient and effective customer-centric information technology environment.
7. Increase coordination, collaboration, and communication among the many providers, supporters, and users of information technology.
8. Define and manage the user environment and experience through formal processes that guide service rollout, technology evaluation, release management, system management documentation, user requirements, and feedback.
9. Establish a mature enterprise project management system that advances transparency, accountability, operational excellence, and assessment.
10. Establish an IT Governance model that defines decision-making rights and authority.
11. Create an ongoing, integrated, systemic, research-based strategic planning process.
12. Develop a plan for a sustainable IT funding model that addresses scalability, reduces the dependency on one-time reallocation funds, and supports long-range IT strategic planning.
IT GOVERNANCE

Earlier this year, we established the first formal IT Governance process to guide the decision-making process, define accountability, and identify responsibility for technology across the university. The IT governance structure is designed to create transparency in decision making and establish committee and cross-campus communication. These practices will foster partnerships across campus, create efficiencies, define clear roles, and align the goals of ITCS to support the goals of the university.

The three main objectives of the IT Governance committee, in consideration of, and with respect to, current, standing IT committees, were to: (1) identify and recommend IT decision-making authority, (2) delineate a clear flow of communication to ITCS from stakeholders and relevant IT committees, and (3) characterize a transparent and consistent process with which to approve external IT projects and obtain IT resources for complex IT projects.

As part of a strong governance structure (www.ecu.edu/ircc), ITCS staff meet regularly with distributed IT staff and the Student Government Association (SGA) to obtain feedback and solicit participation in technology pilot projects in support of academics. In addition, ITCS administration meets regularly with committees such as the Technology Steering Committee (TSC) and the Information Resources Coordinating Council (IRCC) for direction on new and existing technologies and IT programs in production on campus. Furthermore, ITCS staff serve on the Staff Senate committee and participate in Faculty Senate and Faculty Information Technology Committee (FITC) meetings to further develop an understanding of campus technology needs.

ASSESSMENT

Survey results and feedback from committees insure the ongoing adequateness of programs, services, and the access and use of technology. ITCS employs multiple measures to continually gauge and analyze the quality and appropriateness of services to improve and expand our offerings to faculty, staff and students. ITCS administers campus technology surveys every few years to obtain feedback from faculty, staff, and students on their (1) satisfaction with ITCS services, systems, and applications; (2) use of technology tools and systems; and (3) technology and training needs, and incorporates this feedback in future planning and
implementation of technologies to support academic, research, and business needs.

The Faculty and Staff Technology Survey was distributed in Spring 2011; we received 1,060 responses to the survey. The Student Technology Survey was also distributed Spring 2011; we received 1,274 responses to the survey. A few highlights from these surveys indicate strong levels of satisfaction with our services.

Three very important overarching questions were asked on the surveys:

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<th>Faculty/Staff 2011</th>
<th>Students 2011</th>
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<td>% satisfied with the research resources</td>
<td>81%</td>
<td>83%</td>
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<tr>
<td>and support provided</td>
<td></td>
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<tr>
<td>% respondents who thought ECU’s technology</td>
<td>94%</td>
<td>90%</td>
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<tr>
<td>services and resources are important</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall Satisfaction with IT Services</td>
<td>89%</td>
<td>86%</td>
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<td>and Resources</td>
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Faculty, staff, and students who submit IT Help Desk requests are sent a Customer Satisfaction Survey once their technical problem(s) is resolved. In 2010-2011, we received an overall satisfaction average of 4.7 or higher for timeliness, ability, knowledge and other service criteria (scale of 1 to 5), where 5 is excellent.

Additionally, ITCS organizes meetings targeting specific campus technology needs to obtain more detailed information. For example, ITCS staff recently met with distributed IT staff to determine specifically how to most effectively meet video storage and distribution needs and classroom technology needs. As a result of these collaborative discussions, ITCS is investigating two video solutions: (1) a software-only lecture capture solution with live broadcast capability that will provide distance learning students with the same information as on-campus students and allow faculty to build a library of course material that all students can access on-demand to view and review course content; and (2) a solution that will allow students to easily submit and share video files for course assignments and projects.
Efficiencies

EFFICIENCY AND EFFECTIVENESS IN DEVELOPMENT

ITCS continues to enhance essential administrative data processes to meet the ever-changing and growing online service needs of the campus community. Several noteworthy examples include:

- Collaborating with University Admissions to modify back-end technology systems to capture more detailed information on electronic applications that impacts East Carolina University admission decisions.

- Creating online processes that enable students to validate existing or enroll in new health insurance coverage as required by the UNC General Administration mandate of North Carolina public college students.

- Expanding online student services enabling off-campus students to easily sign up for campus meal plans and pay dining meal fees as part of their tuition.

- Automating the online student grade replacement process.

- Offering ECU faculty and staff who are also graduates of the university a convenient means to pay ECU Alumni Association fees through payroll deduction.

- Partnering with SciQuest and SungardHE to establish the initial phase of electronic vendor invoicing that eliminates the need for paper exchange.

- Transferring support of the Sedona Web database application from Office of Institutional Planning, Assessment, and Research to ITCS for support and the Office of Faculty Excellence for training.

“We are continually expanding and automating online services while also adding convenience for our users.”
Several recent projects focusing primarily on the implementation of technologies and business practices that provide timely and more efficient customer-oriented service and support include:

- Implementing a systems management appliance that allows ITCS personnel to remotely control users' workstations to aid in troubleshooting, software installation, patch application, and workstation re-imaging; more quickly resolve Help Desk service requests; delegate support tasks to decentralized information technology (IT) staff housed in various campus departments; improve security; and fine-tune efficiencies. The remote management feature of this new appliance saves staff travel time and university dollars previously spent on fueling state vehicles.

- Development and continued expansion of the "download.ecu.edu" Web service that provides faculty, staff, and students access to twenty-three different software packages. Users can now request immediate access to download a few software packages by submitting a single Web form, eliminating wait periods and manual processing.

- Implementing RightAnswers, an online knowledgebase, to provide users immediate answers to their technology questions. In addition to containing content from companies like Microsoft and Adobe, we are importing custom content based on ECU’s systems. RightAnswers is integrated with our Online Help Desk, allowing customers to submit a service request directly from within RightAnswers if they are unable to find a resolution in the knowledgebase.

- Implementing the Combined Pricing Initiative (CPI), developed by UNC General Administration in 2010, for ECU faculty and staff. The CPI brings savings to all UNC-constituent campuses for their employee workstation purchases. Departments using state funds are required to use the CPI program in their procurement of computers, with allowances for necessary exceptions.

- Implementing a new online Service Catalog that serves as the hub of the ITCS Web site, providing a listing of IT services available to ECU students, faculty, staff and guests. Services are categorized by 1) user group – students, staff, faculty and prospective students; 2) service category – accounts, communication, networking, research and Web services and more; 3) service cost; and 4) alphabetical list. Individual entries include a service description, user availability, access requests and available support and training.

“We are committed to delivering responsive, high-quality, customer-oriented services and support.”

We have worked with numerous departments to integrate social media tools into Web sites to improve user interactivity and to create customized Web applications. For example, Outdoor Drama moved from the University of North Carolina-Chapel Hill to ECU, and we created a Web site that allows students to submit online applications for auditions. In the first year, 278 auditions were scheduled. In collaboration with Institutional Assessment, we developed “Telling our Story”, a Web site that houses a collection of wonderful success stories centered on ECU that will be used as part of the SACS (Southern Association of Colleges and Schools) report. To streamline the SACS data-collection and reporting process, a central document and workflow site was created to manage all of the files used in the accreditation process. A new Policy, Regulations and Rules Web site that will house all the approved policies, regulations and rules for the entire university in one location was developed with extensive collaboration from the University Attorney’s office. In an effort to reduce costs and printing, and provide access to more up-to-date information, the ECU Phonebook is now online and available with bi-annual versus annual updates.
EFFICIENCY AND EFFECTIVENESS IN OPERATIONAL DELIVERY OF SERVICES

Through network infrastructure upgrades, added data storage capacity – now totaling more than 966 terabytes, and improved systems management, ITCS is providing the campus community faster access to information, meeting growing storage needs, and providing tremendous cost savings. For example:

We have recovered more than 70 terabytes of unused storage space.

Access to ECU’s “Piratedrive” file storage service is now twice as fast and the management interface is more efficient.

Our long-term data backup drives are now 8 times as fast and can hold 8 times more data than our previous drives, resulting in cost savings. ITCS is also using new disk de-duplication technology whereby backups can be performed using spare nighttime bandwidth, eliminating the need for backup tapes at remote sites. $ 

We enhanced our university network reliability and expanded coverage to include 46,400 data ports in locations such as technology-enhanced classrooms, the stadium, new and redesigned buildings, and parking lots.

We continue to improve campus safety across both Main Campus and the Health Sciences Campus by upgrading campus alarm panels and security panic buttons, adding locations to our Outdoor Notification System to bring our total to 15 sites, replacing 15 emergency blue light phones with new units that can accommodate security cameras, and adding the ability to integrate VoIP (Voice over Internet Protocol) into our existing burglar alarm and future fire alarm systems for greater control and functionality.

We significantly expanded wireless coverage and capacity for the ECU community.

All phones on Main Campus are now VoIP and thus more cost efficient. We plan to convert the Health Sciences Campus telephony environment to VoIP over the next three years. $ 

ITCS has provided ECU faculty and staff a new, more secure Virtual Private Network (VPN) to connect to the university’s information technology systems while off campus.

We participate in leadership opportunities by sharing information and best practices at conferences and through committee representation such as the 2010 UNC CAUSE Conference, Cisco IP Telephony User Group, various NCREN Committees, Triangle Cisco IP Telephony User Group, UNC Netstudy Committee, EDUCAUSE, and General Administration Alliance.

ITCS continues to proactively implement enterprise systems and data center enhancements to increase the reliability, security, and efficiency of ECU’s information technology operations while meeting stringent university mission requirements. Noteworthy accomplishments this past year include:

Redesigning the university’s virtual infrastructure that hosts more than 240 virtual servers to replace aging equipment, decrease IT operating costs, and add needed capacity for future server growth. The redesign will yield a 200% increase in the number of virtualized servers that can be used. $ 

“By upgrading and expanding our technology infrastructure, we are optimizing data storage, reducing campus energy use, and saving money.”

By upgrading and expanding our technology infrastructure, we are optimizing data storage, reducing campus energy use, and saving money.
Completing a large-scale renovation of our departmental server room to accommodate more than 40 new School of Dental Medicine servers.

Partnering with Facilities Services to assess ITCS data centers and provide vital planning information in support of ECU’s short- and long-term disaster recovery goals as part of the information technology strategic plan.

We continued our close working relationship with research faculty in the Chemistry, Physics, and Biology Departments, recommending an IBM Blade server solution that would expand their existing infrastructure and provide a more robust high performance computing (HPC) cluster. This type of cluster solution best fits within our support confines of systems staff and data center environment, and offers expandability and growth to support ECU research needs well into the future. The new cluster environment, as well as existing HPC systems for the departments, is hosted, supported and monitored in ITCS’s data center.

To meet the ever-present and continuing demands of supported departments on campus to provide system administration support for departmental servers, we are cross-training data center staff during rotational schedules. Coupled with computer-based training, job shadowing in this manner is allowing our staff unique opportunities to expand their professional experience.

This past year, ITCS completed several university e-mail enhancements to provide our users with greater security, increased capacity, and advanced features. We implemented a new e-mail security appliance that has reduced our e-mail storage needs by eight servers and has led to increased staff and system productivity. The new appliance is much more efficient due to its “reputation filtering” feature that blocks incoming e-mail from sites with poor reputations. Over the past year, 81% of all unwanted incoming e-mail was prevented from being delivered to users’ inboxes. Additionally, in response to faculty and staff requests, we adjusted the length of time before e-mail is archived from 30 days to 60 days, providing users more time to read, file or delete e-mail messages. We also increased the e-mail retention period of archived messages from 3 years to 7 years, which has resulted in university cost savings due to reduced maintenance costs.

Moving all ECU students to a no cost, hosted e-mail solution—Microsoft Live@edu, similar to ECU Alumni E-mail—has further reduced our e-mail storage needs, while providing students the features they need. Live@ecu features include:

- 10GB of mailbox space and 20MB attachments.
- A more personalized e-mail address that includes their last name, first initial(s), year entered ECU, and ends in “@students.ecu.edu”. (Example: doeja10@students.ecu.edu)
- A built-in chat that lets students chat with up to 20 friends at one time and is compatible with ECU’s Communicator instant messaging tool.
- 25GB of built-in “Skydrive” folders that allow students

“We are redesigning and renovating our data center facilities and maximizing IT staff to accommodate university growth.”
to store documents or photos and access them from any computer or share them with their friends. (Skydrive is similar to Piratedrive.)

• ECU branding to show their Pirate loyalty (Arrrgh!)
• access through a Web browser and many popular e-mail programs, such as Microsoft Outlook, Microsoft Entourage, and Mozilla Thunderbird
• compatibility with both Windows and Macintosh computers.

EFFICIENCY AND EFFECTIVENESS IN THE DELIVERY OF LEARNING TECHNOLOGIES

This past year, ITCS focused on several information technology projects that have enabled us to meet the high demand for more and advanced technology-enhanced rooms and spaces, expanded distance education training and support, and a wider array of social networking tools and resources. For example:

To increase teaching effectiveness, we have outfitted and upgraded over 50 additional rooms with learning technologies, bringing ECU’s total number of technology-enhanced rooms and spaces to approximately 400. Lecture capture systems were upgraded in several of these rooms and added to new Science and Technology Building lecture halls. Along with these additional rooms, ITCS implemented a new room design to accommodate legacy analog connections as well as digital connections. New technology-enhanced classrooms scheduled for completion this year are located in the Family Medicine Center and the School of Dental Medicine temporary teaching facilities.

Using an asset management software tool that displays system and projector power status, lamp life, and other vital statistics, technology support staff are able to better manage and support the university’s technology-enhanced rooms, even powering off rooms that are not in use to conserve energy. This year, our classroom technologies staff managed approximately 3,848 preventive maintenance and support tickets. 🌿 $

New and more effective components of Blackboard 9 are now in use as a result of a large-scale upgrade to ECU’s enterprise learning platform. Blackboard 9 offers a more efficient interface for faculty with the control panel on the front page, drag and drop capabilities, and easy creation and editing of menu and content items. More innovative opportunities are available to keep students informed and involved in a collaborative environment due to more choices for content, assessments, and interactive tools in their face-to-face, virtual, or hybrid classrooms. Social learning and teaching tools (wiki’s, blogs, journals, and the enhanced groups tool) offer all instructors – no matter their technology experience – new and varied opportunities to encourage active collaboration. Another highly anticipated feature is Blackboard Mobile Learn. Whether across campus or across the globe, students and faculty will be able to access their Blackboard courses from their mobile devices.

Focusing on retention, we provided implementation support for the university’s new student-retention and flagging tool (Starfish) that integrates with Blackboard and allows faculty and advisors to monitor the performance of their students and address areas of concern that students may have.
We have adopted Respondus, a user-friendly tool faculty can use to create and edit tests and quizzes and then export them to a Blackboard course. Tests can be imported into Respondus from publishers’ test banks for review and editing, or created in a Word document.

To reduce confusion and create campus awareness, we developed a social media regulation that was submitted to the university policy committee for approval. The proposed regulation will serve to educate and advise faculty, staff, and students about the importance of responsible online communication, while minimizing risks associated with the use of social media. We are currently laying the groundwork for a supported campus-wide social media tool that positions ECU alongside other innovative leaders capitalizing on an active social media presence.

To more effectively share university video conferencing resources, we have redesigned the online video conferencing center (http://www.ecu.edu/itcs/vc) to inform faculty of the resources available, their location and who to contact to use them. The site contains seating capacity, room capabilities and pictures of each room.

ECU is employing Second Life virtual worlds as a method of supplying a multi-user educational environment for classes, simulations, and collaboration across many boundaries. Second Life provides a mobile, online capability of having classes, meetings, and training without the necessity of a large physical space. In collaboration with internal and external partners, ITCS staff developed several areas in Second Life this past year, such as a Veterans Hospital for the Wounded Warriors Project and the Goose Creek State Park with the North Carolina Department of Parks and Recreation. The latest Classroom Technology classroom configuration is highlighted in a Second Life machinima. This short video clip allows users to “walk into” a virtual classroom in Second Life to see the equipment up close and at their convenience. In addition, faculty and staff can even schedule and attend a one-on-one consultation in a Second Life virtual classroom from the convenience of their office. ITCS staff and ECU Second Life users continue to investigate open source virtual world environments.

During several summer sessions, we are training nearly 3,000 incoming freshmen students on the use of ECU’s online course registration system; securely managing their account passwords; and using ECU’s wide array of technology resources like Blackboard, the Online Help Desk, and campus computer labs. We also conducted sessions for more than 1,000 parents to provide guidance on their student’s technology needs and the selection and purchase of computers for their academic career.

This year, we virtualized the longstanding Quick Start to Online Teaching presentation and created a one-stop location for faculty, designed to provide resources for planning, developing, and delivering online courses. The Virtual Quick Start focuses on features and educational uses of a variety of technology tools to enhance online and hybrid courses, and identifies resources available for accessibility, copyright, distance education library services, training, and much more.

We are adopting and supporting a new social media tool that is a cross between Twitter and Facebook. The new social media tool provides ECU a “Facebook-like” social network for both faculty and staff that can be used in everyday job activities to provide information across ECU and add social interaction to academic work.
This past year, ITCS coordinated with the Office for Faculty Excellence and ECU faculty to provide 17 workshops that focused on technologies such as Sedona, iWebfolio, Web site accessibility, blogging, CommonSpot, Camtasia, Centra, Second Life, social media, cell phones as classroom tools, the Virtual Computing Lab (VCL), and much more.

Providing interactive media to enhance the student learning experience, the Multimedia Center provided creative support and development for a variety of projects that incorporate technology like interactive mapping, a metabolic interactive game to demonstrate the interrelationship of the metabolic pathways, and a Web site that retells the history of the Great Fire of 1922 in New Bern, North Carolina.

Offering an improved user experience, ECU’s new Google maps not only provide building locations and photographs for all campus buildings, they also include parking lot locations (and permit types) and all campus emergency (“blue light”) phones; directions to and from any building or arbitrary address; and integrate into the campus directory to show building locations. For fiscal year 2010-2011, the campus map page was visited 120,150 times. ITCS specific maps for computer labs showing current usage information and smart classrooms showing equipment inventory were implemented as part of this project.

During the hosting of the sixth annual Think-In (http://www.ecu.edu/cs-itcs/thinkin), which featured more than 30 poster presentations with presenters representing each college across the ECU campus, some of the dynamic and innovative teaching strategies and learning technologies faculty are using in their classrooms were highlighted. Presentation topics ranged from virtual teams to synchronous and asynchronous collaboration tools, lecture capture technology, case-based teaching, learning styles, and more.

**EFFICIENCY AND EFFECTIVENESS IN COMPLIANCE**

According to results of the twelfth annual EDUCAUSE Current Issues Survey, of the Top Ten IT Issues of 2011, security remains in the top four as critical for strategic success. At ECU, we continue to work persistently to effectively manage IT security and educate our faculty, staff, and students on secure computing.

Working both independently and drawing upon the insight and expertise of committees and partners such as Identity Theft Protection and University Auditors and Risk Management, our skilled IT security staff remain efficient and effective in implementing solid policies, awareness programs, and protective software with limited security resources. For example:

Through the implementation of a new security awareness training program in Blackboard, we are providing increased access to training and a method to track usage that will meet state audit requirements for delivering and tracking security training. We are providing general security training for campus and targeted training for the Student Employment Office to educate users on the handling of sensitive data. Additionally, student employees sign a Student Confidentiality Statement attesting to completion of the course and adherence to ECU requirements to protect confidential data. Additional materials have been developed to guide users in the storage and use of sensitive data, and we are equipping users with clear information on the most efficient and effective method of achieving compliance with state and federal guidelines. These new guides are resources for de-identifying research data and provide a helpful checklist that can be
used when selecting hardware and application solutions, applying for grants, and working with any protected information. Using this instructional material that can be accessed at any time, we aim to reduce individual consultations.

We have implemented new IT methods that prevent the automatic download of files from the Internet, enabling us to reduce the impact of malware attacks, which is one of the leading causes of decreased user productivity. Malware refers to Trojan horses, spyware, adware, and viruses that can maliciously attack and infect a user system.

We collaborated with the Brody School of Medicine (BSOM) and users who handle sensitive data in various campus departments to deploy a software method that allows encryption of e-mails transmitted to clients outside of the university. The implementation of this e-mail encryption tool provides an easy-to-use and effective HIPAA-compliant solution for secure e-mail transmissions.

Collaboration with the Institutional Research Board (IRB) has enabled the incorporation of an information security review component in the new online IRB approval process due to go live August 2011. Incorporating the information security review component assists the IRB in ensuring adherence to federal, state and university security requirements in the protection of the confidentiality and security of human subjects in university research protocols.

By reviewing and modifying financial security access in Banner, we have increased our effectiveness and ensure the university’s Banner Finance users have the least privileges required when accessing financial data.

“The security arms race continues, with hackers repeatedly finding ways to defeat the best technical, organizational, and social countermeasures created by security experts.” — EDUCAUSE Review (May/June 2011)
Innovations

“…campus IT organizations must rediscover that technological change requires – no it demands – flexibility, openness, adaptability, and CONTINUOUS INNOVATION.”

– EDUCAUSE Review (May/June 2011)
The ECU Web site has been redesigned to support mobile devices. Visitors are automatically redirected to the http://m.ecu.edu Web page when using a mobile device. Before the creation of the more mobile-friendly sight in 2010, ECU had 4,734 mobile visitors, whereas this past year we had 1,163,381 mobile visitors. Just released in June 2011, the ECU mobile app for the iPhone will keep users connected to ECU from on and off campus. Boasting thirteen initial features, users will be able to view campus maps; access the campus directory; check grades and class schedules; get Pirate scores; access ECU’s InnerPirateNetwork; search library resources; keep track of university activities and events; access Blackboard course content, class announcements, and assignments; and more. The Android, Blackberry, and webOS versions will be introduced later in the summer. It’s ECU in the palm of your hand!

This year, we embarked on a comprehensive analysis and redesign of our workflows and processes internal to ECU. The Offices of ITCS and Institutional Planning, Assessment, and Research (IPAR) put into place the beginnings of a campus-wide shift in culture involving the implementation of a Business Process Review (BPR) model. This is our first integrated effort that will focus on improving our core business processes within the framework of our mission and goals. The primary goal is to fundamentally rethink how we do our work so that we better support our mission. Teams are being formed to identify, analyze, and redesign our core processes with the aim of realizing significant improvements in cost, quality, service, and speed.

ECU was the first to implement the most comprehensive Banner ERP system in the state and has found it to be reliable and stable. New hardware is being installed and due to go live Summer 2011. The new infrastructure uses the latest technology enabling performance improvements of up to 50 times and cost savings between 25-50%. Other components of Banner are also moving to a more powerful infrastructure with a smaller footprint resulting in a decreased usage of data center resources. ECU was the first to implement the most comprehensive Banner ERP system in the state and has found it to be reliable and stable. New hardware is being installed and due to go live Summer 2011. The new infrastructure uses the latest technology enabling performance improvements of up to 50 times and cost savings between 25-50%. Other components of Banner are also moving to a more powerful infrastructure with a smaller footprint resulting in a decreased usage of data center resources.

All ITCS-supported eCommerce solutions have been successfully converted to a third party tool, TouchNet uPay. ECU is no longer responsible for PCI Compliance for these solutions, significantly reducing ECU’s risk and investment in support and maintenance. The TouchNet uPay system enables departments across the university to easily set up their own e-commerce stores. This innovative service increases the delivery of services and insures compliance with state and federal laws. Numerous departments are participating and preparing sites.

“We provide key information quickly and conveniently to our on-the-go students, faculty, staff and alumni through ECU’s new mobile Web site and mobile app.”

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By creatively using new, advanced tools, ITCS is now able to monitor more than 400 servers across the enterprise. These servers are critical to the university and support applications such as Banner, Blackboard, e-mail, Active Directory and the main Web site, to name a few. To provide improved effectiveness and efficiency through monitoring of these core servers, ITCS embarked on an inventive project to identify and deploy an enterprise monitoring solution that brought the monitoring of a large magnitude of different systems under one monitoring umbrella. This project streamlined and simplified the monitoring approach of all enterprise systems, and provides improved early identification of performance issues allowing ITCS systems and support staff to ensure higher performance and overall environment availability.

PiratePort, Undergraduate Admissions’ new prospective student portal, allows prospective students to create an account, sign up for campus tours, view their admissions checklist, and create a detailed prospect profile.

The university created an improved and inventive online method to certify faculty credentials using the latest Web technologies. To date, more than 2,000 faculty members are currently being processed through this Faculty Certification System.

As an innovative way to increase reliability, ITCS is implementing a RecoverPoint appliance for the university’s new Microsoft Exchange 2010 e-mail environment. RecoverPoint is considered “Tivo for electronic data”, allowing ITCS staff to “rewind” data to specific points in time for granular disaster recovery, for failover to our secondary site, or for testing purposes.

ITCS recently redesigned storage access so that data that needs to be fast and easily accessible is readily available while data that does not need to be accessible as often can be placed on less expensive solutions. The redesign has allowed us to avoid paying premium price for data we do not need to access frequently. All of these features are automated through a new software solution. Moreover, we have doubled the speed of some of our connections using new fibre modules.

ITCS partnered with the Office for Faculty Excellence to offer the first annual Teaching with Technology Summer Workshop. This five-day, 30-hour, intensive hands-on experience provided participants the opportunity to learn about technologies they can use in teaching, time to consult with mentors about best uses of technology, and time to work on developing a course.

This year, the Virtual Quick Start to Online Teaching site was added to incorporate an online component to our longstanding Quick Start to Online Teaching presentation. The Quick Start to Online Teaching presentation is designed to provide resources for planning, developing, and delivering online courses. The Quick Start focuses on features and educational uses of a variety of technology tools to enhance online and hybrid courses. The Quick Start also identifies resources available for accessibility, copyright, distance education library services, training, and much more.
This past year, 36,516 requests for service or support were logged into TechExcel, the university’s Online Help Desk system, while 142,825 have been logged since the system’s inception in July 2007.

The ACE Student Computing Support Center has received 5,936 requests for service or support for student computers during the 2010 fiscal year, and 24,477 since the system’s inception in July 2007.

The ECU Web site (www.ecu.edu) averaged more than 73 million page views this past year from more than 66 million unique visitors in 224 countries.

Google devices index 200,000 unique pages of Web content, including HTML, PDF, and Microsoft Office documents. Devices process, on average, 36,000 searches per day.

Nineteen hundred Web sites with approximately 115,444 Web pages have been developed in ECU’s content management system, CommonSpot, by 702 contributors across the university.

Nearly 2,000 WordPress blogs have been created for courses, projects, and departments as a way to share information with others. WordPress was recently upgraded to the latest available version.

Since its launch in 2009, the “download.ecu.edu” software download Web site has processed approximately 17,874 software downloads.

ITCS has reduced the university’s number of long-term backup tape drives from 12 to 8, and the number of tapes from 1,700 to 220.

Nearly 1,900 Web sites – 701 faculty sites and 1,194 student sites – have been created through PiratePanel, an application that allows users to request secure and non-secure Web space, manage files effectively, and set permissions to public or private (password protected).
• Qualtrics, ECU’s advanced survey and research tool, allows all ECU faculty, staff, and students to develop and administer online surveys. To date, 522 faculty and staff and 433 student users have created 2,236 surveys with 137,025 responses. Because Qualtrics handles end user support, help desk tickets related to campus surveys has decreased by many orders of magnitude.

• Working collaboratively, ITCS, Academic Affairs, Materials Management, Dell, Apple and several campus departments provided ECU faculty and staff with approximately 1,234 standard state-of-the-art desktop and laptop computers.

• During the 2010-2011 academic year, the Virtual Computing Lab (VCL), which provides students 24x7 access to several software packages free of charge, served over 6,857 reservations and over 22,793 hours. Citrix served 1,842 unique users, and hosted 30 applications for a total of 6,851 sessions.

• Currently, we have assigned more than 7,400 VoIP lines and 5,800 IP phone sets. ECU’s VoIP system routes more than 168,000 calls weekly.

• Approximately 1,027 faculty and staff attended training led both independently by ITCS and ITCS in collaboration with the Office for Faculty Excellence (OFE) workshops.

• In preparation of the university’s upgrade to Blackboard 9 in May 2010, nearly 57 training sessions – group, one-on-one, departmental, and virtual formats – were offered and attended by nearly 460 participants.

• This past year, 1,100 students participated in 38 courses that integrate Second Life virtual worlds in programs in the College of Education, College of Nursing, and the College of Technology and Computer Science, to name a few.

• ITCS’s reporting and analysis environment, ecuBIC, houses more than 4,600 reports and boasts over 3,700 supported users. As of spring 2011, attendance in in-house training courses in the ecuBIC 100 – 300 curriculum has exceeded 700. An increasing number of our information workers are choosing a course of self-study via online training materials—manuals, videos, etc.

• ECU offers alumni e-mail accounts through a partnership with Microsoft, which makes the transition between school and professional accounts seamless. This also provides ongoing affiliation with the university, which simplifies the reenrollment process for returning students. To date, nearly 6,587 alumni e-mail accounts have been created.

• ECU has expanded its wireless access points to more than 670 campus wide. This includes academic classrooms and student common areas.

• During 2010-2011, 5,697 course presentations were captured and streamed using Mediasite — a rich media recording system — and viewed 89,886 times.

• ITCS currently supports more than 500 university servers.

• We refreshed 333 computers in 29 campus computer labs across campus, adding 2 additional computer labs with 73 computers.