

The logo consists of the letters 'IT' in a bold, black, sans-serif font. The 'I' and 'T' are connected at the top. The letters are positioned inside a yellow circle that has a wavy, sunburst-like border extending from the top right.

OFFICE OF INFORMATION TECHNOLOGY  
Northern Kentucky University



# 2010-11

ANNUAL REPORT

# LETTER FROM THE CIO

*Dear Colleagues:*

To say that this has been an exceptionally busy time for campus and the Office of Information Technology is no overstatement. For the past several months, countless hours have been poured into two major undertakings, the 2011-16 Campus Technology Plan and the newest addition on campus, Griffin Hall. Both projects will have significant impact on our university and our students.

As technology advances and students' demands change, the Campus Technology Plan will serve as a roadmap to tackle such issues and impact student success and learning outcomes. From an administrative standpoint, the plan will provide structure, helping to maintain reliable, secure and efficient processes for NKU's information technology systems and infrastructure.

Griffin Hall, the new home for the College of Informatics, will provide students with rich technology enhanced education programs. This building features state-of-the-art equipment, collaborative learning spaces and group study areas. Griffin Hall also contains a complex infrastructure of CAT6A and fiber, which supports 47 technology-enhanced spaces, including a 120-seat digitorium that has a sophisticated Christie Digital MicroTile Wall.

Earlier this year, we launched the Center for Innovation and Technology in Education, an area within OIT that focuses on academic technology. The center supports NKU faculty in the design, development, implementation and delivery of high-quality instruction through innovative learning resources. This is yet another example of how OIT's work impacts the university and students.

As the academic year progresses, IT will work to improve service offerings, continue to build ROI from our SAP implementation and work collaboratively with the campus to ensure IT priorities align with the university's goals. We will continue to strive to use information technology to support improved learning outcomes, expand access to educational programs, provide effective external communications and increase productivity with data-driven decisions.

I look forward to the continued collaboration with faculty, staff and students across NKU!

*Sincerely,*

*Tim Ferguson*

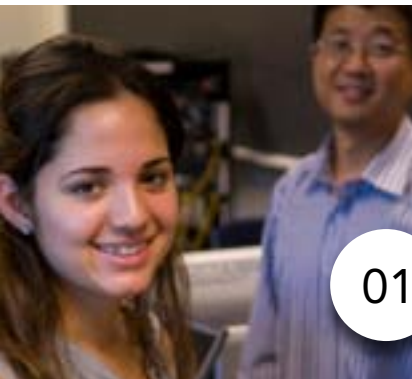
Associate Provost, Office of Information Technology  
Chief Information Officer



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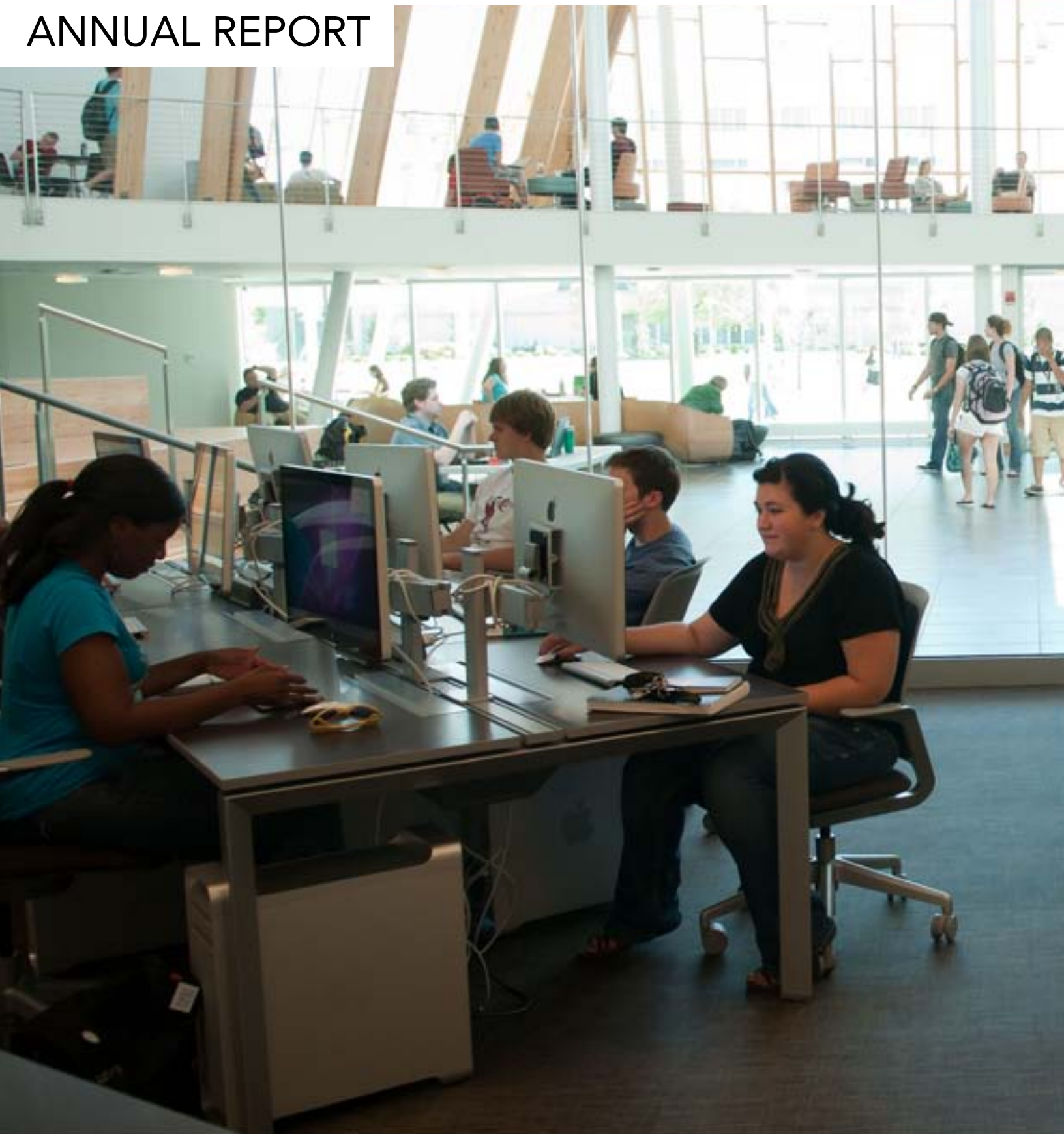
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Visit [cio.nku.edu](http://cio.nku.edu) to view the annual report or to learn more about the Campus Technology Plan.



# OFFICE OF INFORMATION TECHNOLOGY

## ANNUAL REPORT



A photograph of a modern office interior. In the foreground, a man is seated at a desk, working on a computer. The desk is equipped with a large monitor, a keyboard, and a mouse. The office has large glass windows and a bright, open atmosphere. In the background, a woman is walking through the office space. The overall scene is clean and professional.

## No. 3

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# OIT Outlook and Objectives

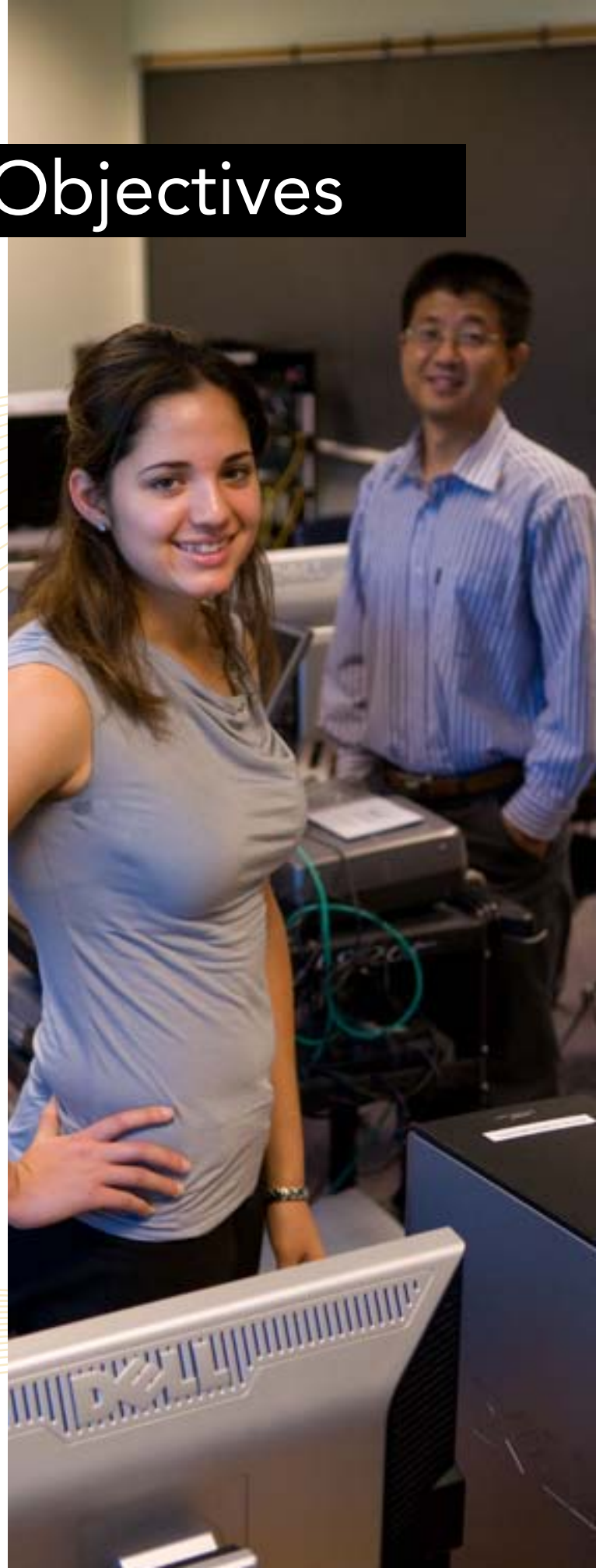
## Vision →

To empower and serve the university community through accessible, collaborative, innovative and advanced technology solutions that provide an enriching academic experience to our students, and to strengthen the ability to educate the public we serve.

## Mission →

The mission of the Office of Information Technology, in support of the strategic goals of the university, is to provide highest-quality service and delivery through innovative and efficient technology for students, faculty, staff and the community. As an integral part of the university and as leaders in technology we will:

- Improve the learning experience with flexible classroom designs that accommodate a variety of learning and teaching styles utilizing technology best practices in both face-to-face and distance-learning classes.
- Provide students, faculty and staff with easy access to information anytime, anywhere, across a variety of devices and platforms to support learning, decision-making and operational effectiveness.
- Assist and support the northern Kentucky region to achieve educational excellence through advanced and efficient technology solutions.
- Provide a robust, high-performance and secure IT infrastructure for university resources and information.
- Evaluate and implement emerging technologies to provide solutions that enhance processes and improve services for the university and community.
- Provide training and support for the university community in the use of advanced software and educational tools through a highly skilled technical staff.



# Leadership

The OIT team has established and maintained a national presence for NKU and participates in industry leadership groups to ensure that NKU's needs and values are represented correctly with our partners and community. Building high-quality, close relationships with our strategic IT partners is extremely important. These relationships and partnerships allow us to find out about new products and services prior to their release and in some cases shape the new product or service. These engagements with our partners and vendors allow NKU to proactively build our technology roadmap of the future.

The OIT team represents NKU on the following committees:



- Leadership Board for CIOs – This board serves as a think-tank on the topic of technology in higher education.
- Dell Platinum Advisory Council – This council is a partnership connecting “thought leaders from Dell’s strategic customers” with senior Dell executives for frank discussions and close collaboration that helps guide business strategy at Dell.
- SAP Higher Education Advisory Council – This council is a partnership with SAP. Universities are able to collaborate and voice their challenges and requirements to SAP, driving priorities for SAP future areas of development.
- IT Leadership Forum – This is a regional CIO roundtable with membership from organizations like P&G and Toyota.
- Blackboard Idea Exchange – This group provides feedback on product development.
- K-12 Technology Leadership Committees – Members of OIT participate on various K-12 leadership committees including the Steering Committee for Grant County Career and Technology Center.

In addition to serving on numerous committees and presenting at national conferences, OIT has received numerous awards including the 2011 Best of Kentucky Technology Award after having received a similar award in 2008 for the Best of Kentucky Visionary Award. In 2011, NKU's CIO Tim Ferguson was recognized as one of Computerworld's Premier 100 IT Leaders for 2011. Computerworld defines an IT leader as someone who guides the effective use of information technology to improve his organization's business performance.

## Governance

To support communication, decision-making and prioritization, NKU has several governance organizations that OIT works collaboratively with including:

- IT Policy Council – This council is composed of the vice presidents reporting to the university president. They meet on a monthly basis. IT policies and IT projects affecting the campus community are discussed, and this council is the body that approves changes in IT policies.
- IT Advisory Council – This council is composed of faculty, staff and students. It is chaired by faculty on a rotating basis. To obtain information, in support of the work of ITAC and its subcommittees, surveys are issued to faculty, staff and students.

- myNKU Advisory Group (SAP) – This council is composed of faculty and staff with specific focus on initiatives relating to student life cycle management, human resources, and finance/accounting systems. Participants within this council provide input on enhancements and communicate new/enhanced functionality to their respective areas.

Our efforts in regard to governance will continue to evolve. Within the FY '12 objectives, plans are outlined to change governance to better serve the campus per the NKU Campus Technology Plan.

# Fiscal Year '12 Objectives

The fiscal year '12 objectives (for July 1, 2011 through June 30, 2012 period) align with the 2011-16 Campus Technology Plan. These objectives will be reviewed and revised on a yearly basis.

## Impact Student Success & Learning Outcomes

### *Student Information Systems*

- Support departmental requests for software rollouts –
  - Online course catalog – support the deployment through project management, integration with SAP/university website and training necessary business offices and academic departments.
  - Student retention – support the deployment through project management and integration with the selected tool.

### *Student Engagement*

- Identify solutions that provide instructors with the capability to text students in their courses.
- Pursue opportunities to collaborate with NKU colleges in testing of technology that allows faculty/students to interact during class to maximize student learning outcomes.

### *Student Experience*

- Implement a custom online orientation system (online Northern Exposure) initially geared to transfer students providing comparable information communicated during a face-to-face orientation on campus.
- Further mobile development of iNKU and n@NKU enhancements to provide information, tools and resources to prospective students, current students, faculty and staff.

- Customize mobile development, as requested (i.e. Chase Law) – support campus initiatives using mobile technology to improve/enhance student experiences.

### *Student Service*

- Continue SAP enhancements improving accessibility of student information to faculty and advisors.
- Develop an online School-Based Scholars admission application to allow high school students to apply for admission into the School-Based Scholars program.

### *Enhanced Learning Environments*

- Replace and upgrade smart space technology throughout campus to bring classrooms current with technology thereby enhancing delivery of instruction to our students.
- Establish and utilize an enhanced learning environment for academic success (incubator classroom) to experiment with learning space technology.
- Create an innovative technology teaching showcase, an online publication showcasing and highlighting the exceptional innovative technology integration and teaching practices of Northern Kentucky University faculty.
- Support the grand opening of Griffin Hall with new technology spaces and provide digitorium event technology support and support to campus departments as moves occur.
- Create virtual desktop clients on campus to reduce physical lab space on campus yielding cost savings and also increasing services to students.

## Ubiquitous Learning

- Establish additional faculty workgroups to research emerging technologies for teaching and learning.
- Host faculty-focused teaching and learning workshops/seminars to support continual learning by our faculty.

## Instructional Technology Integration

- Expand NKU's academic software portfolio.
- Increase adoption of lecture capture to support university goals relating to online delivery of courses.
- Expand online course development to support university objectives.
- Create more web-based trainings for faculty enabling learning for faculty anytime, anywhere.

## Optimize University Operations

### Continuous Process Improvement

- Move internally hosted faculty/staff email to a cloud-based solution.
- Provide college and functional area-specific technology liaisons who understand unique business processes and technology methods of use (embedded technology support).
- Continue SAP training and support for campus community:
  - Perform training gap analysis (survey) to identify gaps in the SAP user community regarding SAP business process/system knowledge for future trainings and documentation.
  - Participate in the training needs assessment to assess SAP user community and identify which users are unable to complete their job duties within SAP system.
    - Assist HR and business areas to identify SAP system functionality needed for each area's business processes.
    - Assist HR and business areas to identify select SAP user groups based on security roles/access.
    - Provide assessment software from existing licensed software to assist HR and business areas with SAP user evaluations.
  - Enhance myNKU support documentation and website to be business process focused.



## DID U KNOW?

myNKU's paperless process  
for finance saves

**624**

**REAMS OF PAPER PER YEAR**

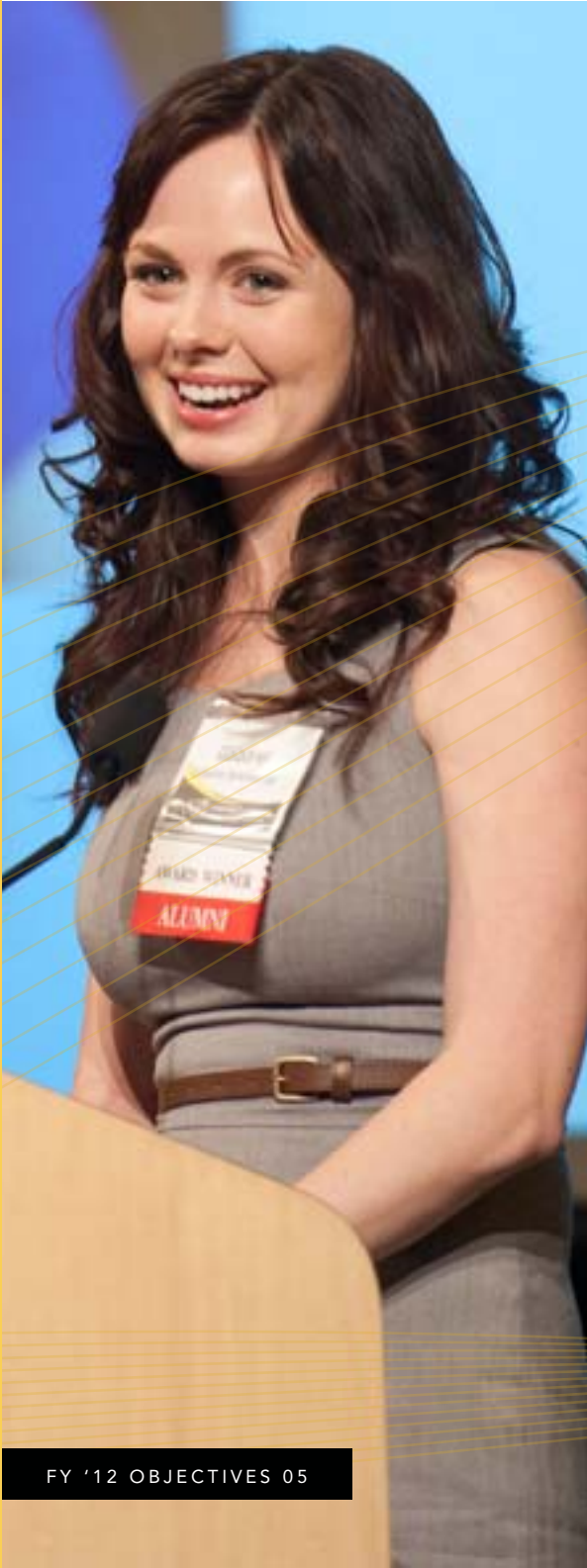
That's approximately 10.4 trees!



# DID U KNOW?

Think the Internet is faster at NKU? It is.  
**NKU HAS A COMBINED 600 MB  
LINK TO THE INTERNET.**

- SAP development projects:
  - Improve financial and accounting system:
    - Implement new foundation account request form and online electronic approval for better documentation and efficiency.
    - Implement new university fund/cost center request form and online electronic approval for better documentation and efficiency.
    - Develop travel BW report for departments to view travel encumbrance and expense information.
    - Update fixed asset master for IT fields to allow technology inventory tracking within SAP.
  - Improve human resources system:
    - Implement grant time and effort to track grant time allocated for grant compliance.
    - Implement separation personnel action request form for better documentation and efficiency.
    - Develop KERS interface to upload information from SAP system to state retirement system for efficiency.
    - Enhance ECM with reporting functionality for organizational unit approvers and develop reporting functionality to meet budget reconciliation needs.
    - Improve the position budget function and expand access to the process to include a broader usage base.
  - Improve the student life cycle management system:
    - Implement Paymetrics to replace TouchNet payment gateway.
    - Implement change of specialization (major) and change of program forms using workflow to automate this process. This will improve service to students and gain efficiency for the Office of the Registrar.
    - Enhance advisor assignment process for efficiency.
    - Enhance student activities tab to track additional detail on student activities for additional data analysis.
    - Implement near real-time interface to Sigma financial aid system for process efficiency.



- o Complete the final phase of the custom online event planning application. This will allow 90 to 95 percent of all complex course/linking scenarios to be handled by the academic departments and free the Office of the Registrar from performing this work.
- o Enhance the grade-change process by automating instructor/faculty approvals via workflow. This process change will save time for both faculty and the Office of the Registrar.
- o Implement annual SAP system upgrades and maintenance to support regulatory and institutional mandate.

### *Enhance Operational Reporting*

- Continue efforts to identify and fulfill campus operational reporting needs.
- Enhance support documentation and training for operational reporting.

### *Employee Experience*

- Enhance single sign-on with campus departments so that faculty and staff don't have to maintain as many user names and passwords.
- Enhance self-service password reset to make it friendlier for incoming students, existing students, faculty and staff.
- Begin Phase 1 of Knowledge Base for client self-service.

### *Business Intelligence*

- Improve Data quality and plan for data governance processes.
  - Engage quality assurance committee for data and business processes to address data clean-up.
  - Research and resolve data/process issues as they surface and resources allow.
- Implement a self-service web-based data dictionary/query directory that will provide campus Business Warehouse users the ability to pull information about fields and reports at their convenience.

### *Unified Communication & Collaboration*

- Collaborate with campus to work toward creating an intranet for students and one for faculty/staff to improve communications and service on campus.

### *Social Mobile Web*

- Implement new web content management system providing a more user-friendly tool for both PCs and Macs and also providing Web 2.0 functionality.

## **Strive for Office of Information Technology Operational Excellence**

### *Organizational Effectiveness*

- Campus Support
  - Expand 24x7 coverage by full-time help desk personnel.
  - Extend the classroom service hours to support teaching and learning.



- myNKU Solution Center
  - Refine and centralize support process/issue resolution to provide SAP user community with better system support.
  - Establish service level agreement with SAP user community to set support expectations.
- Business Processes:
  - Implement internal service level agreements between IT functional areas to ensure understanding of roles, responsibilities and levels of service to be provided.
  - Begin learning about and adopting Information Technology Infrastructure Library best practices and processes to improve service to the campus.
- Extend the use of remote support tools to resolve technology problems.
- Complete restructuring process within the Office of Information Technology to better support the needs of the campus.
- Budget for and provide professional development opportunities to all IT staff.
  - Provide customer service training.
  - Provide SAP staff development opportunities through additional technical and cross training and specifically business analyst skills training.
- Develop an internal and external communication plan to ensure messages are being consistently and appropriately delivered to the campus.
- Participate in Educause Core Data process to monitor year-to-year comparisons to comparable universities' offices of information technology.

### *Policies & Standards*

- Review IT policies annually, updating based on best practices. Create new policies for emerging technologies that establish a secure and robust environment for campus.
- Create a detailed testing standard for underlying system components and core software such as web browsers and Microsoft Office. Develop a communication plan to announce changes in the software lifecycle and provide a detailed list of supported software setups.





## *Governance*

- Review campus technology plan annually; modify based on campus priorities and industry strategic directions.
- Establish an IT steering committee to support governance process determining the appropriate projects for IT to focus on yielding the most benefit to the campus.
- Create project management office to focus on project management and IT processes – Perform project portfolio management roll-out to OIT and campus supporting the changing governance process.
- Create an SAP development governance panel.
  - SAP development efforts will be determined by prioritization process through functional units and others appointed by VPs.
  - As IT governance process matures, SAP prioritizations will be inputs.
  - Business case justification will be required for all SAP system changes/enhancements for ROI tracking purposes.

## *Resource Management*

- Begin Phase 1 of inventorying and managing software across the entire campus resulting in cost savings for the university through centralized management.
- Utilize reporting within PPM tool to manage supply/demand of IT resources to strategic initiatives.

## *Transformation through Innovation*

- Investigate and plan to create an innovation center to research emerging technologies.
- Develop a technology roadmap to support the campus technology portfolio inclusive of services, applications, hardware, and software.

## **Strengthen the Information Technology Infrastructure**

### *Enterprise Architecture*

- Expand infrastructure systems redundancy (network, servers, tape systems, data) to provide better service for faculty and staff.
- Create redundancy for state KyRon network/Internet2 (pending grant). This will provide a backup for network to ensure network uptime and increase the university's bandwidth to the Internet.

- Expand server virtualization, reducing number of physical servers leading to a cost savings for the university while improving system availability.
- Begin Phase 1 RFID by creating an interactive network system to help track campus equipment and create personalized communication to the students.
- Begin Phase 1 intelligent building system that integrates all the Griffin Hall systems to allow automation and centralized management.
- Expand web application and database security with Fortify and other product usage to prevent intrusions.
- Investigate and plan mobile data management strategy with tools such as Afarra, Good, etc.
- Install SAP annual system upgrades and maintenance.



**DIDUKNOW?**  
Blackboard has an average of  
**14,350**  
VISITS EACH MONTH.

### *Infrastructure Services*

- Implement a campus-wide digital signage system.
- Utilize automated software distribution for desktop computers providing efficiencies within and outside information technology.

### *Business Continuity*

- Complete the disaster recovery plan for key Items (business impact analysis).
- Establish a disaster recovery hot site to support campus business critical systems in the event of a disaster locally.
- Perform annual physical testing at remote DR site to test/refine processes.

### *Information Security*

- Expand data loss prevention to protect the university.
- Provide SANS Institute Awareness training program for employees to provide further understanding of security risks.

### *Data Architecture*

- Enhance integration of third-party systems (e.g. OrgSync, IMLeagues) with the campus directory system and allow data to be loaded into the business warehouse system, where applicable.

### *Identity Management*

- Provide an enhanced password change service for students and increase system automation for employee accounts.



# What NKU Says About OIT

" Thanks to the training opportunities and ongoing course level support I've received from CITE, I have become a 21st-century teacher. I can take an instructional fear, concern, obstacle or even a dream goal to CITE, and staffers work with me to achieve positive resolution. I urge everyone to work with CITE because they can reach into our disciplinary worlds and help us do what we do better!"

*DR. REBECCA "BECKY" BAILEY*

Director, Public History Program  
Department of History and Geography

" SAP PROVIDES ENORMOUS DATA RESOURCES that can help us better understand a very complex environment and make better decisions. The trick is accessing those data and creating analyses that are meaningful and useful. We're all engaged in a learning experience to those ends, and I've been impressed that the SAP reporting team is willing to listen to users and cooperatively develop reports related to key decisions."

*DR. GREG MARTIN*

Chair  
Department of Marketing, Economics and Sports Business

" THE DEPARTMENT OF HISTORY AND GEOGRAPHY is a "frequent flyer" of OIT services. We especially appreciate the fast and efficient service we receive when reporting a technical problem with our smart classrooms. And, as always, your Blackboard and instructional design staff are phenomenal! We look forward to supporting OIT in any manner possible in implementing the new Campus Technology Plan. With great appreciation for all that you do."

*DR. PAUL TENKOTTE*

Chair and Professor, Black Studies, Women's and Gender Studies  
Department of History and Geography

“ *As the complexity of IT infrastructure rises, expectations for support also rise, and this is a double challenge for any information technology office. On NKU's campus we are fortunate enough to have an especially responsive and knowledgeable support team. In particular, they have made NKU's spectacular showpiece of digital technology, Griffin Hall, an across-the-board success.* ”

*DR. KEVIN KIRBY*

Dean (Interim), College of Informatics

" THERE IS NO WAY I WOULD CONSIDER teaching an online course unless I was absolutely sure of the support of CITE. It would be too hard to do (online learning and computer/technology are foreign to me), and the quality of the course would not be as good as a face-to-face course (my number one criterion for success). The CITE staff have been perfect in terms of course creation, administration and student support. There has never been a question or task they could not or would not address. An online course can be educational and stimulating. I have asked them to consider a name change to exCITE."

**DR. GEORGE MANNING**

Professor of Psychology

" ACROSS THIS PAST YEAR, personnel within the Office of Information Technology have been exceedingly attentive to the needs of my office and beyond helpful. They respond immediately to requests for assistance, dedicate considerable time to solving our problems, and never fail to go to great lengths in keeping us technologically healthy and functioning. I feel quite fortunate to have such colleagues in such critical positions."

**DR. SAMUEL J. ZACHARY**

Dean, College of Arts and Sciences

" OIT HAS A GREAT KNACK FOR ADDRESSING THE NEEDS OF the campus and furthering the university's green initiatives. A lot of the paper forms from when I started in 2007 are online now. Processes like signing up for classes are much more streamlined and user friendly in myNKU."

**MARK TRAUB**

IT Web Development  
Graduating Senior: December 2011

" NKU INFORMATION TECHNOLOGY HAS PARTNERED WITH UNIVERSITY HOUSING ON A NUMBER OF PROJECTS THAT HAVE IMPROVED NETWORK ACCESS, SPEED, AND SATISFACTION FOR RESIDENTIAL STUDENTS."

**PETER TRENTACOSTE**

Assistant Vice President for Student Affairs (Interim)



# OIT Portfolio

Please note: The information below reflects the 2010-11 fiscal year from July 1, 2010, to June 30, 2011. Griffin Hall, the new home of informatics, officially opened Oct. 10, 2011. The building provides several resources including 600 computers, 47 smart classrooms, and student lounges with large displays for group study. These numbers and more will be reflected in next year's annual report.

## How OIT Spends Its Time

### GROW:

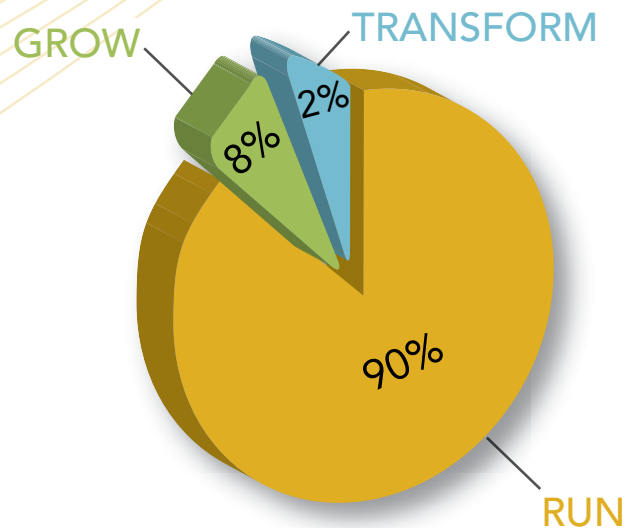
Represents investments needed to provide IT solutions that fundamentally support a changed business model. These are nondiscretionary investments.

### TRANSFORM:

Represents investments needed to develop or enhance IT solutions to support scalable business growth. These are usually discretionary investments.

### RUN:

Represents ongoing operations and is usually associated with nondiscretionary investments.



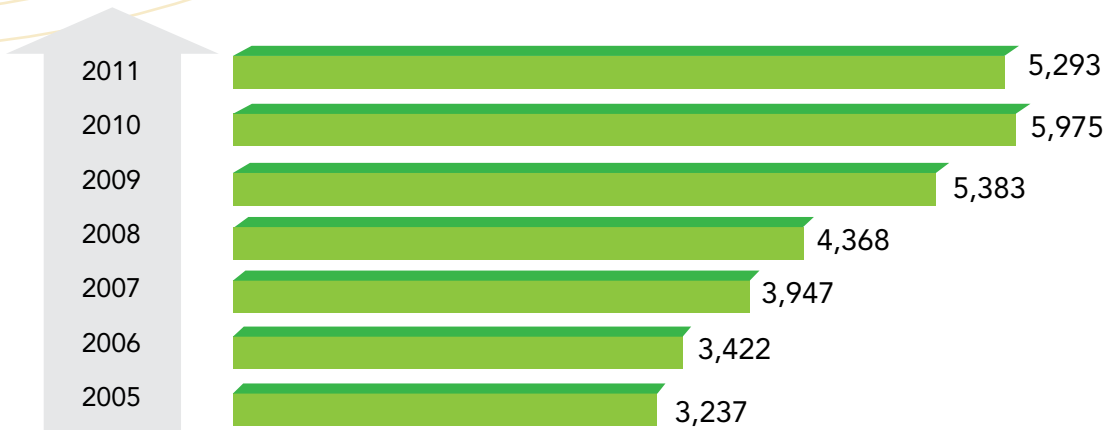
## Software Applications

The Office of Information Technology supports six kinds of software applications and more than 100 software components.



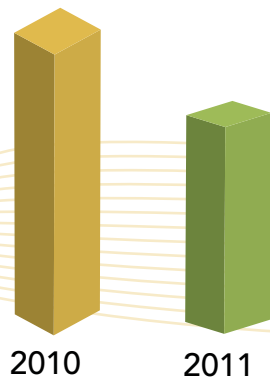
# Computers

## Number of Computers on Campus



According to the 2010 NKU IT student survey, only 30 percent of NKU students use computer labs on a regular basis. Nationally, the trend in higher education institutions is to reduce the number of campus computer labs and re-appropriate funding to support other student initiatives. IT is currently working to reduce the number of NKU computers on campus. This supports virtual environments (see "Enterprise Architecture" on page 26) and leverages student-owned devices, allowing students to access university software.

## Number of Support Staff Members for Desktops/Laptops on Campus



In 2010, each support staff member was responsible for 664 computers. Today, each support staff member is responsible for 588 computers.



According to the industry best practice, each staff member should support 150 computers.

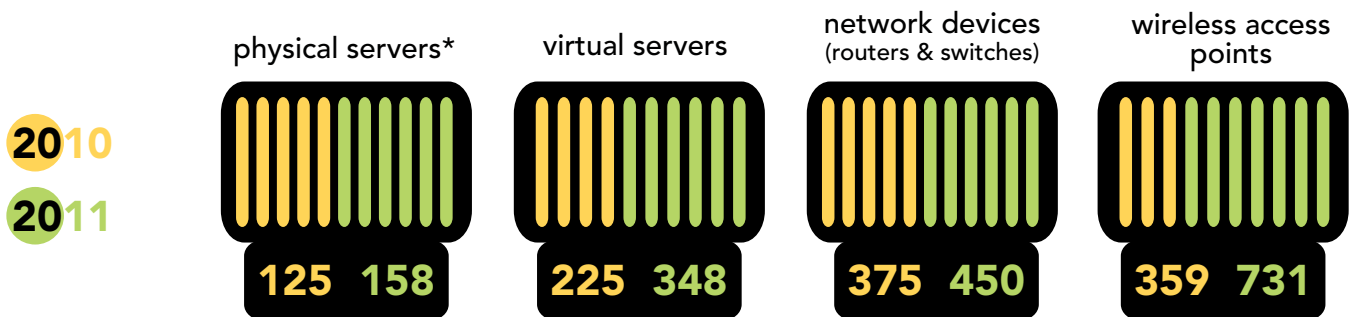
# Smart Classrooms

## Number of Support Staff Members for Smart Classrooms



In 2010, four support staff members were responsible for 242 smart classrooms. Today, four support staff members are responsible for 250 smart classrooms.

# Network and Server Comparisons



\*See "Enterprise Architecture" on page 26 for more information.

# Metrics

## Number of computer labs:

OIT supports **60** labs

## Number of training sessions:

**456** training sessions in 2010

## Employment:

**60** Number of NKU OIT student workers in the 2010-11 fiscal year

**107** Number of full-time employees that NKU OIT has

## Number of OIT service requests per year:

**26,408**

## Number of emails per day:

NKU students send on estimate

**75,000** messages daily

## On-campus email:

There are about

**1.5M** emails sent on campus between faculty/staff daily



## On-campus → off-campus email:

NKU faculty and staff send about

**150,000** email messages to off-campus addresses daily

## Off-campus → on-campus email:



**1.1M**

emails from off-campus addresses are sent to students, faculty and staff daily

**750,000** are virus or spam

# NKU OIT

## *Accomplishments*





2010 / 2011

With the recent release of the NKU Campus Technology Plan, the accomplishments for FY '11 are organized in alignment with the strategies presented in the plan.

Beginning with the next annual report, progress toward the FY '12 goals presented at the beginning of this annual report will be reported to the campus.

*“Financial aid partnered with the staff in information technology to make significant improvements to the SIGMA financial aid system and its corresponding interface to SAP. These system enhancements had a profound positive impact on student service.”*

JOEL ROBINSON

Associate Vice President, Enrollment Management

## **Impact Student Success & Learning Outcomes**

*Provide consistent, reliable services that engage students, enhance learning and improve support through technology.*

### *Student Information Systems*

- The Office of Admissions now has a mobile application to aid in the recruiting of prospective students. n@NKU was created to be an online view book providing information to students and their families about NKU. Features are also in place to support newly admitted students with reminders of what they need to do as they prepare to attend NKU. n@NKU is available to download free in the iTunes store ([itunes.apple.com/us/app/n-nku/id400755548?mt=8](https://itunes.apple.com/us/app/n-nku/id400755548?mt=8)).
- The Office of Student Affairs received support as it piloted EMAS Retention Pro, a software tool that will further aid the university's ability to retain students. This aligns with the University Connect and Persist program that was created in 2009 to help students achieve college success. The tool is integrated with data from our student information system.

### *Student Engagement/Experience and Service*

- The myNKU system now allows guests to conveniently make a payment online for a student's account.

- Several enhancements were made to enable easier online course registration for students and their advisors. They can now perform searches for special courses and programs. Registration issues and restrictions are also clearly identified and displayed.
- All students with outstanding balances are now notified that their account can be set up on a payment plan with interest charges (which students can accept or decline). This is in compliance with Regulation Z requirements.
- The Regional Student Technology Leadership Program showcase at NKU was held last fall. More than 500 students from local schools presented their technology projects, which were classified as community service, entrepreneurial, global connects (collaborative projects), instructional and technical.
- Incoming transfer students are not typically inclined to attend face-to-face orientation sessions where important information is communicated to our students. Since we are seeking to improve student retention, a concern was raised that these students were not getting this information to help them be successful at NKU so an alternative for these students was necessary.

A student-centered online orientation program, *scoop.nku.edu*, was created through collaboration with the Office of New Student Orientation and Parent Programs and the Office of Marketing and Communications.

The online orientation program has videos, helpful information and quizzes to test comprehension. Through SCOOP, our incoming students can learn about NKU much like a student who comes to campus for our face-to-face orientation, Northern Exposure.

- Graduate students in the Master of Science in executive leadership and organizational change program now have resources via a mobile application, ELOC. It is available to download free in the iTunes store ([itunes.apple.com/us/app/eloc/id436232453?mt=8](https://itunes.apple.com/us/app/eloc/id436232453?mt=8)).
- A new process was put into place that makes it easier for our incoming freshmen to apply for institutional scholarships. As students are encouraged to write their essays in Microsoft Word, they can now just attach their essays to the application. Additional improvements were made to the process, which was developed to support the requirements from both the Office of Admissions and the Office of Student Financial Assistance.





## DID U KNOW?

Last semester, NKU students  
printed more than

**364,252**  
PAGES OF INFORMATION.

### *Enhanced Learning Environments*

- The delivery of instruction through technology is of utmost importance. In fact, faculty rated this the highest during the most recent Faculty Senate survey of faculty priorities. Additional resources were added to support this initiative.

Eight new smart classrooms were created on campus, and outdated equipment was replaced in 42 existing smart classrooms.

Additionally, routine maintenance was performed in all smart classrooms during the summer and winter to reduce the number of technology failures during the academic year and to prolong the life of the equipment.

### *Ubiquitous Learning*

- A new, user-friendly tool that allows students to learn and study anytime, anywhere is now in place. Faculty can record lectures for online classes and can record face-to-face classes. The lecture capture tool is a web service offered by Tegrity. Currently, approximately 30 NKU faculty members are using it to record lectures for their students.
- A goal was set by Academic Affairs to develop 60 new fully online courses between now and fall 2012. Additional instructional designers are in place dedicated solely to the development of the new online courses.
- A mobile application study tool, NKU Flashcard, is now available for NKU students. With faculty creating flash cards specific to their courses, students can study for classes anytime, anywhere and without the hassle of index cards.

NKU Flashcard is available to download free in the iTunes store ([itunes.apple.com/us/app/nku-flashcard/id414551435?mt=8](https://itunes.apple.com/us/app/nku-flashcard/id414551435?mt=8)) and in the Android market ([market.android.com/search?q=nku+flashcard&so=1&c=apps](https://market.android.com/search?q=nku+flashcard&so=1&c=apps)).

### *Instructional Technology Integration*

The Center for Innovation and Technology in Education was established in the fall of 2010 under the direction of Academic Affairs. CITE is an area that focuses on academic technology. CITE supports the university's mission of ensuring academic quality and placing learners and their learning at the center of all we do. CITE is dedicated to supporting excellence and innovation in teaching and learning by supporting NKU faculty in the design, development, implementation and delivery of high-quality instruction through innovative learning resources.

CITE offers a variety of services including:

- Individual consultations providing faculty with assistance in designing, creating, implementing and delivering quality instruction.
- Small discipline-specific workshops focused on targeted areas of interest.
- Open workshops to promote and support teaching and learning.
- Various workshops to promote the effective use of technology, including Blackboard.
- Faculty focus groups and learning communities researching the educational impact of new technologies on learning.
- Private media recording suites for faculty use with technology support readily available.
- Innovations area to provide faculty and staff with the ability to demo and test new technologies including the newest eReaders, tablets, netbooks, smart phones and more.
- Collaboration with faculty on educational technology projects.
- Institutional research that impacts educational technology practice, policy and procedures.
- Classroom technology integration support to promote the effective use of classroom technology and best practices.
- Teaching and learning resources and best practices.

## Optimize University Operations

*Support the university's efforts to streamline and simplify university administrative operations and systems.*

### Continuous Process Improvement

- Several myNKU enhancements were made to support our advisors as they work with students to improve retention and overall student success. Enhancements to myNKU include:
  - The Quick Reference tab, which provides key information to advisors at glance.
  - A Permit Quick Entry app that allows advisors to quickly create course permits.
  - The Course Registration Activity tab, which provides advisors with information pertaining to when courses were added or dropped.
  - The way converted transfer work is displayed to advisors as well as how it is recognized by the system for course registration and degree audit processing.
  - The online course registration system that now provides better search capabilities and clearly displays registration messages.
- A custom application was developed to improve course schedule creation within the academic departments.

*" I am grateful for the amount of online courses that are offered. I'm not sure that I could be graduating without that flexibility. "*

VICKI SCHWERTMAN, Student





- Online course evaluation information is used by faculty to improve their courses and also used by department chairs to see how courses are perceived by students. To improve the participation rate for the evaluations, a communication plan was executed by Faculty Senate. Supporting that plan, students who failed to complete or opt out of course evaluations were automatically restricted from viewing grades in myNKU for a specified duration of time.
- Travel expense functionality was implemented to allow staff and faculty to enter and approve travel requests and expenses online for more efficient processing. Additional online approvals were developed and email notifications provided for pending approvals.
- A position budgeting tool and report was implemented for university divisions to improve budget management.
- Several interfaces between the core administrative system (SAP) and third-party systems were developed or enhanced in an effort to improve the efficiency of university business processes. Examples of these interfaces include Smart Catalog software, SIGMA financial aid system, housing system (RMS), and HR benefit vendors (i.e., Aetna, Humana and Hartford).
- HR processes were improved by updating functionality for the enterprise compensation management tool to improve the salary increases process, eliminating double approvals found in online HR forms, updating parking permit enrollment process for part-time faculty, and automating the creation of a travel eligibility flag on employee accounts.
- Data integrity is of utmost importance to everyone on campus. To provide accurate reporting and budget projections, student employee data was reviewed and updated within the HR system, and faculty vacation accrual calculations were updated.
- Faculty and staff technology training is routinely offered to support NKU faculty and staff with performing their job duties efficiently. Trainings are offered in a variety of formats including hands-on, instructor-led workshops; individual consultations; small-group workshops; and online webinars.

During the past year, 421 workshops were hosted with approximately 1,500 attendees.

In addition to the regular trainings for myNKU and Blackboard, new forms of professional development for NKU faculty and staff were offered.

During the spring semester, CITE staff facilitated a series of 12 teaching and learning conversations. Topics included design best practices, the benefits of blended/hybrid courses, reducing plagiarism, fostering online collaboration and more. More than 70 faculty members attended one or more sessions, and individuals who attended at least one TLC received a complimentary copy of *The World is Open: How Web Technology is Revolutionizing Education* by Curt Bonk.

A Lightning Round session was another new event this year.

This informal, lunch-time session featured NKU faculty and CITE staff demonstrating how technology has been used in the classroom at NKU.

The Lightning Round consisted of ten 10-minute demonstrations including blogs, Tegrity, Wimba Classroom, Respondus and StudyMate, and more. Approximately 27 faculty members attended this two-hour session.

Collaborating with Educational Outreach, the annual Summer Faculty Institute was held to provide training options to faculty after the spring term concluded. Two 1-week sessions were offered to our faculty.

### Enhance Operational Reporting

- Additional myNKU reporting options are now available to campus users. Our campus constituents have more information available to them and more ways to view it than ever before. Additional training and support has enabled users to analyze their data and make effective decisions regarding their programs.
- New reports were also developed while working with the campus as needs arose to support data-driven decisions.
- External reports were also developed as needed for official reporting to the Integrated Postsecondary Education Data System and the National Student Clearinghouse.

### Employee Experience

- Additional functionality was developed to enhance the HR open enrollment process. Each fall faculty and staff sign up for their benefits for the next calendar year. Available benefits typically change from one year to the next requiring updates to the open enrollment process within myNKU.

## DID U KNOW?

The NKU homepage has an average of **44,500** VISITS PER DAY.

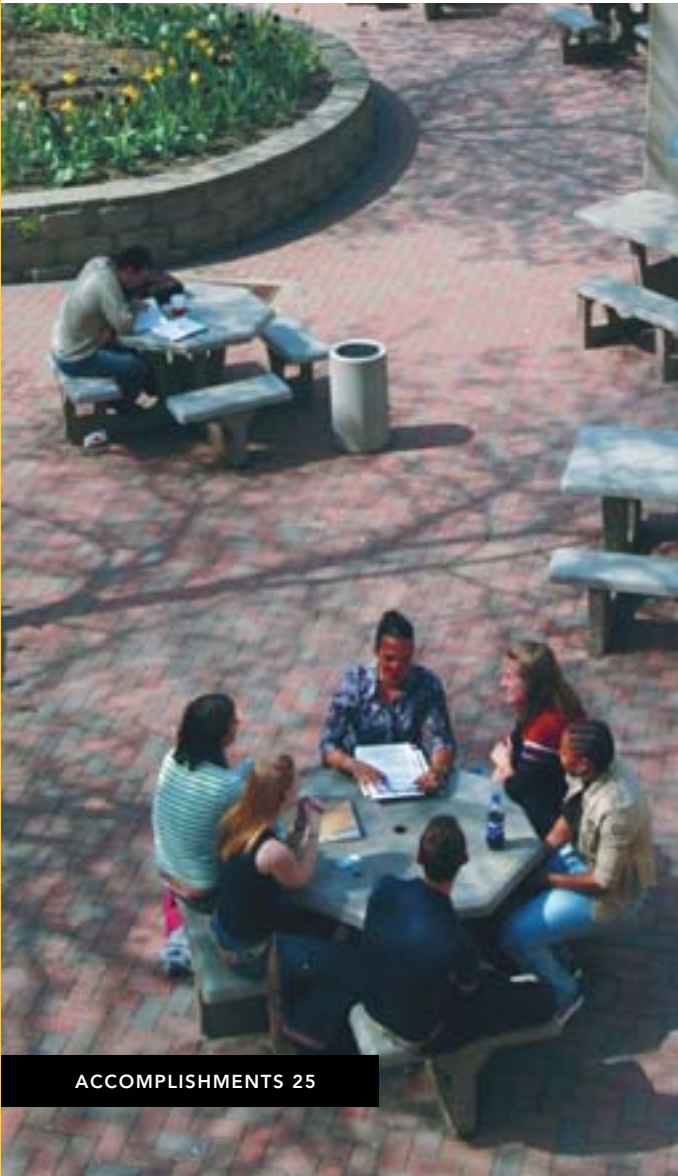




## DID U KNOW?

During the 2010-11  
fiscal year, OIT employed

**60**  
STUDENTS.



### *Business Intelligence*

- The Higher Education Business Intelligence Summit was hosted by NKU. This event allowed OIT staff to collaborate with other institutions and provided staff with professional development opportunities.

More than 160 individuals from 35 institutions within the higher education community attended to share and collaborate on business intelligence topics, including products, projects, success stories, strategies for campus adoption and more.

This BI Summit occurred again in November 2011.

### *Unified Communication and Collaboration*

- Sharepoint collaboration software is used on campus by project teams and departments to, at a minimum, share documents. The latest version of Sharepoint 2010 was rolled out, providing new features and functionality. The new version was installed, test-site conversions were implemented, and existing SharePoint sites were migrated to the new version.

## **Strive for Information Technology Operational Excellence**

*Transform IT to a culture of operational excellence in behaviors and processes.*

### *Organizational Effectiveness*

- Customer feedback was used to make improvements to the IT Solutions Center call routing structure. Callers can now opt out of the phone queue and leave a detailed message after holding for 3 minutes.

The IT Solutions Center also changed its phone procedure so all menu options lead to a service representative 24/7. If the issues cannot be resolved by the service associate, a service request will be submitted for it to be worked on the following business day.

- The Office of Information Technology partnered with the President's Climate Commitment Task Force to promote the PlantMyPhone Campus Challenge, a nationwide green initiative for Earth Day. The challenge enabled students, faculty and staff to easily recycle their old cell phones in a safe and sustainable way. By participating, the university helped fund the planting of trees in 12 tropical countries. More than 150 phones were recycled.

## Resource Management

- Campus resources include faculty and staff personal computers. Every year, outdated NKU computers and laptops are replaced to better support the work of our faculty and staff. In the 2010-11 fiscal year, 595 desktop computers and laptops were replaced.

## Governance

- The Campus Technology Plan was created to align with the university strategy. This plan supports the university as it strives to meet the needs of our changing student population, providing, for example, the ability to learn anytime, anyplace.

## Transformation through Innovation

- The Virtual CIO initiative provides technical support to six K-12 school districts and the early childhood development centers for three northern Kentucky counties. To provide ongoing support, OIT collaborated with the Center for Applied Informatics to work jointly with K-12.

## Strengthen Information Technology Infrastructure

*Provide a reliable and secure information technology infrastructure that enhances productivity and accessibility.*

### Enterprise Architecture

- Efficient computing strategies are now being utilized in an effort to reduce electrical, cooling and hardware maintenance expenses. This strategy utilizes virtualization software to consolidate server hardware. To date, 125 physical servers have been migrated to 15 physical servers, and around 75 percent of the server environment at NKU is now virtualized. Migration to virtual servers will continue for the next year to reduce electrical and cooling costs.
- Server replacements are required to meet the expansion of functions, improve performance, and stay current with technology cycles. Several servers were replaced in the server replacement cycle but none as critical as the servers supporting myNKU and Blackboard. The servers supporting these functions were replaced and upgraded to the newest version of the operating systems and software.



*" I utilize the Wi-Fi every day. It is a vital component to my academic career. I use my laptop to make PowerPoint presentations, type papers, research and get on Blackboard."*

CODY GABBARD, Student



- Software upgrades are needed when vendors provide new releases or support patches for university software applications. With the new releases, new functionality typically becomes available to users.

Over the past year the following software upgrades were completed:

- **NKU email system**  
Microsoft Exchange was upgraded to allow new features like a more user-friendly experience and additional browser support, and it offers more integration features (smart phone integration) as well as expanded quotas.
- **Blackboard**  
NKU's learning management system had several upgrades performed over the past year. These upgrades have improved performance, increased system availability and introduced additional features.
- **BSI**  
The BSI software is used for the calculation of payroll taxes. A new version of BSI was installed and various tax changes were installed.
- **DB2**  
The backend database of the myNKU system is based on DB2. These systems were upgraded to the newest versions to enable additional myNKU features and better performance.
- **All Card swipe**  
A new All Card swipe program was created to enable quicker access to a student's record. This access allows the bursar, registrar and campus recreation to service their customers (students) more quickly and efficiently.
- **EMAS Recruitment Pro**  
A new version of the EMAS Recruitment program was installed for the admissions office. The new version has many new features and is now utilizing an enterprise database system. This software allows the admissions office to recruit new students for NKU.
- **ImageNow**  
The document imaging system for NKU has been upgraded and its use has been expanded. The system has been upgraded to run on an enterprise database. The system has been expanded to be used in advising, Chase College of Law and the College of Informatics.

- *Microsoft Forefront/Symantec Antivirus*

A new version of the virus scanning software was deployed to campus for both Windows and Apple operating systems. This software has current virus definitions and allows for central management.

- *Room Management System*

The room management system used by university housing was upgraded to the newest version. This also allowed for the integration of the RMS billing to the SAP system and the ability for students to sign up for room assignments online.

- *Pharos Pay for Print/Print servers*

The software used to manage printing on campus was upgraded. New virtual servers were created to house the campus Pay for Print solution, along with the installation of version upgrades. The print servers were also replaced and the newest printer drivers, supporting both 32- and 64-bit printing, were deployed.

## Infrastructure Services

- The recent expansion of mobile device usage in the classroom has increased the need for wireless access on campus. Wireless coverage is now a critical service on campus. IT has added more than 200 access points across campus and in the NKU residential village.
- Network upgrades have also occurred on campus in addition to the wireless expansion. Campus bandwidth has increased to 10 GB between the buildings along with expanding the main campus network to Campbell Hall and Clearview subdivision auxiliary offices.
- Four new wireless networks were created in the 2010-11 fiscal year. Two of the secure wireless networks, NKU\_SECURE and NKU\_ENCRYPT, provide full access to internal servers. The other two are separate networks for specific locations on campus: Griffin Hall and the Soccer Stadium. The Griffin Hall network will enhance the educational experience by keeping network activity separate from NKU's main network activity. The Soccer Stadium network will provide quality wireless access, especially for mobile devices.
- Additional front-end servers were installed and system clustering was expanded in an effort to increase the availability of all NKU systems including Blackboard, myNKU, database systems, etc. (Clustering is when multiple servers work together acting as a single computer to enhance uptime.) Departmental and individual quotas were also expanded by adding a new SAN disk storage system.

## DID U KNOW?

NKU'S email servers  
manage an average of

**2.5 MILLION**  
EMAILS PER DAY.



## *Business Continuity*

- The continual operations of university functions during a disaster are imperative. IT has been working to improve procedures to keep key systems available during a disaster and to have ready a rapid recovery approach for the rest of the campus systems.

More than 250 disaster recovery documents are available within a repository/collaboration site.

- A secondary data center was established at Murray State University that enables faster data recovery in case of a disaster. NKU is running parallel key business systems at this data center.

## *Information Security*

- Many initiatives were accomplished to enhance the security at Northern Kentucky University.

An end-user education program, Norse Secure, was developed to promote security awareness through regular email notifications and provide training utilizing videos tutorials and quizzes.

NKU's redesigned security website that incorporates services, awareness and incident management information was also launched.

Enhanced data security was deployed through the implementation of tools such as Identity Finder, Bitlocker Data Encryption and an upgraded version of the Microsoft Forefront client. Antitheft software such as Prey has been evaluated and is being deployed to all laptops.

Use of campus security cameras and keycard access was expanded for additional physical security.

## *Identity Management*

- Multiple accounts/passwords are a headache for many campus users and through the use of single sign-on this can be resolved. WEAVEonline users can now log on using their NKU user names and passwords. Infrastructure is now in place to rapidly add systems to this landscape.





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