About OIT

**OUR 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.

**OUR MISSION**
The mission of OIT, in support of the strategic goals of the university, is to provide the highest-quality service 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-performing 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.

**GOVERNANCE AND COLLABORATION**
To support communication, decision making and prioritization, NKU has several key organizations that OIT works collaboratively with including:

- **IT Policy Council** – This council is composed of the vice presidents reporting to the university president. It meets 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 Committee** – 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 Workgroup** – This council is composed of faculty and staff and focused on initiatives related to the student life cycle management, human resources, finance and reporting components that make up the myNKU system. Appointees to the group provide input and feedback on new and enhanced functionality, and serve as liaisons between their respective areas and the myNKU teams.
- **Student Focus Groups** – To get input and assistance on specific topics, student focus groups are formed. For instance, students were consulted and assisted with testing of the virtual desktop service that offers students remote access to the base computer lab software.

IT received the Postsecondary Institution Technology Award at the ConnectKentucky Tech Day event in November for work on the virtual desktop project. The virtual desktop allows students, faculty and staff to log into what appears to be a “computer lab machine” via the internet from any personal device. This saves resources by relying more on highly efficient servers rather than multiple desktops, increases the speed of new software and security installations and reduces electrical usage.
STAFFING

OFFICE OF INFORMATION TECHNOLOGY
CIO and Associate Provost for IT

**Academic Technology Group**
Provides faculty, staff and students with innovative learning resources such as workshops, seminars, individual consultations, etc.
- Learning Management Support & Instructional Technologies
- Instructional Design
- Administrative Training
- Norse Tech Bar

**Enterprise Systems Group**
Provides application software development and support as well as project management across the IT organization.
- Administrative Systems Applications
- Business Intelligence/Warehouse
- Mobile Applications Development
- Web Services and Development
- Project Management Office

**Special Projects**
- IT Communications
- Liaisons

**Business Support Group**
Provides support for the myNKU administrative systems and implements system enhancements in partnership with the business areas.
- Student Lifecycle Management System
- Business Analysts
- Human Resource Business Analysts
- Finance Business Analysts
- Enterprise Reporting and Analytics Business Analysts

**Infrastructure and Operations Group**
Ensures that technology is operating properly and securely across campus.
- Help Desk
- Information Security/Disaster Recovery
- Network Administration and Telecom
- Application/Database Support
- Data Center Administration
- Client/Desktop Support
- Multimedia/Event Support
- Smart Classroom Support
- Program Management

**Administration and Budget**
- Administrative Support
- Budget and Contract Administration
- Records Management
2013 IT Annual Student Survey Results

1,904 STUDENT RESPONSES, HIGHLIGHTS BELOW

How would you rate Wi-Fi coverage?
- Superior
- Very good
- Average
- Poor
- Don't use it
- Other

What mobile apps would you use for NKU?
- Class Collaboration
- Course Materials
- Directions
- Exam Prep
- Lecture Videos
- Library Search
- Online Research
- Registration
- None
- Other

Which tech devices do you own?
- Desktop
- Laptop
- Android Tablet
- Apple Tablet
- Windows Tablet
- e-Reader
- Smartphone
- Cell phone
- None
- Other

Key Trends in Higher Education
OIT relies on technology information from industry leaders, such as Gartner and Educause, to predict trends as well as identify key issues we must overcome. The following lists technology to watch, trends and issues.

EDUCASE “BE THE CHANGE YOU SEE; TOP TEN IT ISSUES IN 2014”

1. Improving student outcomes through an institutional approach that strategically leverages technology
2. Establishing a partnership between IT leadership and institutional leadership to develop a collective understanding of what information technology can deliver
3. Assisting faculty with the instructional integration of information technology
4. Developing an IT staffing and organizational model to accommodate the changing IT environment and facilitate openness and agility
5. Using analytics to help drive critical institutional outcomes
6. Changing IT funding models to sustain core service, support innovation and facilitate growth
7. Addressing access demand and the wireless and device explosion
8. Sourcing technologies and services at scale to reduce costs (via cloud, greater centralization of institutional IT services and systems, cross-institutional collaborations and so forth)
9. Determining the role of online learning and developing a strategy for that role
10. (tie) 1) Implementing risk management and information security practices to protect institutional IT resources/data and respond to regulatory compliance mandates. 2) Developing an enterprise IT architecture that can respond to changing conditions and new opportunities.

Source: www.educause.edu
FY 2015 Objectives for the Office of Information Technology

**IMPACT STUDENT SUCCESS & LEARNING OUTCOMES**

This strategy places learners and their learning at the center of all we do at the university. It focuses on students’ technology experiences inside and outside the classroom to ensure academic quality.

- Provide student technology support through the Norse Tech Bar, expanding & changing services based on student input. *Fuel the Flame 1.2.a; 5.6.a,b. Academic Affairs Work Plan 2014-15*
- Support the faculty with the development and delivery of high-quality, engaging and rich learning materials (enhanced video production tools, simulations and interactive content). *Fuel the Flame 3.1.d; 3.3.a, b; 3.4.b; 3.5.a, b; 5.1.a; 5.6.a. Academic Affairs Work Plan 2014-15*
- Support faculty with alternative delivery methods and pedagogies by fostering collaboration and shared best practices. *Fuel the Flame 3.1.d; 3.3.a, b; 3.4.b; 3.5.a, b; 5.1.a; 5.6.a. Academic Affairs Work Plan 2014-15*
- Continue to increase mobility by expanding the virtual lab environment and encouraging more usage. Begin modification of the university website to be more mobile friendly. Enhance mobile applications (NKU mobile app, N@NKU, GoNorse) to provide additional functionality to campus community. *Fuel the Flame 5.6.b. Academic Affairs Work Plan 2014-15*
- Continue to issue the IT annual student survey, determining changes to services and offerings based on student input. *Fuel the Flame 5.6.b. Academic Affairs Work Plan 2014-15*

**OPTIMIZE UNIVERSITY OPERATIONS**

This approach seeks to enhance the university’s technology-based operations and systems, increasing both OIT and institutional effectiveness.

- Automate and enhance business processes to improve efficiency, service and usability. Continue to implement strategic projects based upon the prioritized schedule (e.g. Non-Attendance Tracking and Notifications, Clearinghouse 2014 Enrollment File Reporting Compliance Updates, SSN and DOB security restrictions, ESS Direct Deposit Validation, Review and Modification of Requisition Release Strategies). *Fuel the Flame 2.1.a,b; 2.2.a; 5.4.a,d; 5.6.b,c. Academic Affairs Work Plan 2014-15*
- Deploy a Business Objects reporting environment; create college/unit dashboards to help monitor a variety of operational metrics for internal decision-making. *Fuel the Flame 5.4.c; 5.6.c. Academic Affairs Work Plan 2014-15*
• Partner with the Human Resources, Procurement Services and university offices to enhance technology purchasing procedures, device tagging and employee tracking within myNKU. Fuel the Flame 5.3.b, c; 5.4.a,f; 5.6.c.
• Strengthen communications for students and employees. Fuel the Flame 5.4.d. Academic Affairs Work Plan 2014-15
• Enhance IT support to meet the specific technology requirements of different colleges/units through a hybrid technology support model, combining centralized and decentralized support services/resources and expanding IT Help Desk services. Fuel the Flame 5.6.a, b. Academic Affairs Work Plan 2014-15
• Provide fiscal and technology support resources to complete annual IT programs (e.g. academic software process, computer replacement, smart classroom upgrades). Fuel the Flame 5.6.a

**STRIVE FOR IT EXCELLENCE**
This plan of action aims for the highest standards of excellence in every dimension of our work, including service, resource management, policies and standards.

• Evaluate cost efficiencies of overall cloud, software as a service and other emerging options. Fuel the Flame 5.3.a, b, c; 5.4.d, f; 5.6.b. Academic Affairs Work Plan 2014-15
• Use customer engagement and feedback to implement an outreach plan. Fuel the Flame 5.4.d; 5.6.a, b.
• Improve the effectiveness of IT governance through foundational processes (e.g. updating charters, creating onboarding processes for new members). Fuel the Flame 5.4 d, f
• Participate in the emerging committees for business analytics and data governance to help mature data governance practices. Fuel the Flame 5.4.c; 5.6.c. Academic Affairs Work Plan 2014-15
• Expand transparency of IT services and operations (e.g. beginning a service catalog, share hardware and software standards). Fuel the Flame 5.4 d, f
• Continue the rollout of the project management office, leveraging software and best practice solutions for better collaboration and customer service. Fuel the Flame 5.4.d, f
• Reevaluate the baseline hardware technology that employees should have, and compare with other alternatives such as subsidizing personal purchases and exploring a “bring your own device” program including policy, support and acquisition. Fuel the Flame 5.6. Academic Affairs Work Plan 2014-15

**STRENGTHEN THE IT INFRASTRUCTURE**
This strategy addresses ways to build upon the university’s current information technology infrastructure, creating a more powerful and secure foundation for daily use and in the event of a disaster.

• Expand university bandwidth and improve the wireless experience to support learning and efficiencies to meet growing demand. Fuel the Flame: 1.4.c; 3.3.a; 3.5.a; 5.4; 5.6.a, b. Academic Affairs Work Plan 2014-15
• Implement enhancements and upgrades to critical business applications (e.g. myNKU, Blackboard, Housing, Exchange, Digital Sign Management, etc.). Expand software self-service catalogs allowing faculty and staff to install software themselves as needed. Fuel the Flame: 1.2a; 1.4c; 3.3a; 5.4; 5.6
• Explore acquisition of cyber security insurance. Fuel the Flame 5.4b; 5.6c
• Develop roadmaps by evaluating technology software and service sourcing strategies that encourage cost efficiencies and keep technology current. Fuel the Flame 3.2.c; 3.3.a; 5.3.a, b, c; 5.4.d, f; 5.6.a, b. Academic Affairs Work Plan 2014-15
FY14 Accomplishments

STRATEGY # 1: IMPACT STUDENT SUCCESS & LEARNING OUTCOMES

This strategy places learners and their learning at the center of all we do at the university. It focuses on students’ technology experiences inside and outside the classroom to ensure academic quality.

Inside the Classroom

- Norse Tech Bar opened officially in fall 2013. Since July, we have processed 2,532 service requests and 1,132 tablet/laptop checkouts.
- Researched benefits of an individualized student portal and personalized notifications. The technology group of the Student Success Center prepared a recommendation for moving forward with a student portal which was presented to the IT Policy Council in May.
- Annual IT student survey distributed to gauge student technology uses, preferences and feedback. Student responses totaled 1,904.
- Updated 12 smart classrooms in the following buildings: CH, FH, HC, LA, SL, MP.
- Requests from faculty to reserve a cart of iPads for classroom use grew to approximately 300.
- Added enhancements to Blackboard and associated tools.
- TurnItIn (plagiarism prevention software) is in pilot phase with trainings ongoing and full campus implementation scheduled fall 2014.
- Respondus Monitor pilot (records student and surrounding environment while taking online assessments to deter cheating) ran during spring 2014 semester using 200 free seats. Faculty requested additional seats so they can continue usage.
- Lecture captures increased to 5,981.

Outside the Classroom

- Exploration of learning analytics tools included a demo of Blackboard Analytics for Learn™ provided to small group of campus constituents. Attended a national learning analytics conference to gain additional information on the current state of learning analytics.
- Held over 3,787 consultations between faculty and (4) instructional designers or (4) academic technology analysts to strengthen course content and delivery (2,202 hours logged).
- Offered 390 training classes on technology used in academia and administration. Offered first EdTech Institute

EdTech Institute 2014

The second annual EdTech Institute took place on May 13-15 in Steely Library. EdTech Institute offers a variety of workshops focused on effective integration of education and technology. Presenters included CITE staff and faculty members.

This three-day event offered concurrent sessions in three tracks: Flipping the Classroom, Student Engagement and Assessments, plus miscellaneous topics.

- 36 sessions offered (e.g. flipped classroom, creating instructional videos, accessibility, academic honesty, augmented reality, social media in the classroom, rubrics, etc.)
- 367 total seats filled in the 36 sessions
- 90 unique faculty attended (full and part-time faculty), 9 staff attended
(see highlight). Offered an Online Faculty Institute each semester to put faculty in the role of a student in an online course. Two Summer Faculty Institutes offered to prepare faculty for effective online teaching.

- Increased the amount of data collected to support retention efforts. Card swipes to track student activities totaled 75,000 swipes across 20 offices (Testing and Disability Services, Orientation, PathFinders, Norse Tech Bar, Veterans Affairs, Registrar, etc.).
STRATEGY # 2: OPTIMIZE UNIVERSITY OPERATIONS

This approach seeks to enhance the university’s technology-based operations and systems, increasing both OIT and institutional effectiveness.

myNKU Student Life Cycle Management

- NCAA Web Application: Created a one stop web application for Athletics to monitor and maintain its data on athletes.
- Grade Change Workflow: Transitioned grade change request from paper to online workflow, allowing faculty to request a grade change through myNKU, with all necessary approvals processed via workflow.
- Midterm Grade Entry - Blackboard to myNKU Functionality: Created functionality allowing faculty the option enter midterm grades into Blackboard with automated upload into myNKU, eliminating the need for faculty to enter grades in two different systems.
- University Academic Structure Realignment: The KY CPE created statewide definitions for academic programs and program options (track, concentration, specialization) that NKU was required to comply with by fall 2013.
- Change of Address Self-Service: Allows students to update their address online including their cell phone number.
- MAP-Works integration with myNKU (Phase 2): Included initial setup, integration with myNKU, plus continued support and training.
- Transfer Student Enrollment Process: Allows transfers to enroll based on the number of credit hours earned, aligning with the priority registration process for native NKU students.
- Royall 2014: The full launch of the ROYALL/NKU Dream Big application and deposit campaigns for first-time-freshmen for fall 2013 yielded a 30% increase in applications, a 19% increase in acceptances and a 16.3% increase in confirmation fees.
- Student Accounting 1098-T Enhancement: Enabled the 2013 IRS tax form reporting to be accurate and compliant per IRS regulations.
- Clearinghouse Transcript Change: Provided to the National Student Clearinghouse the minimum set of data (including the students enrolled and/or graduated in a given term) so that NKU will no longer have to pay a fee to participate. The data can also be used to support decision making on student engagement, recruiting and retention activities.
- Sigma ProSAM Real-Time Integration: Created a batch transfer of changed student information (as opposed to the entire data set) from myNKU to Sigma ProSAM.
- Confidential Bursar Notes area: Created a private internal Bursar message area that cannot be viewed by everyone having access to it.

IT and Marketing + Communications released an updated NKU mobile app this year. The NKU app is a university-wide initiative to improve the mobile experience of students, faculty, staff, visitors, and neighbors who interact with our campus and community.

The new design and organization offers categories like myNKU, where students can access grade, schedule and hold information; Campus Resources, Getting Connected, Athletics and Navigate Campus options, which include a map and bus schedule.

New features include a safety alert button to indicate an emergency, and Endorse the Norse, which enables anyone to make a donation to the university.

The app is available for Apple and Android devices.
to student accounts.

- Final Grades Entry - Blackboard to myNKU Functionality: Following a similar project for midterm grades, created functionality allowing faculty the option enter final grades into Blackboard with automated upload into myNKU, eliminating the need for faculty to enter grades in two different systems.

- Performance Indices: This data quality effort will ensure that the two areas of SLCM where Performance Index data (Cumulative GPA, Earned Credit Hours, etc.) is stored are always accurate and synchronized.

- Pre-Enrollment Fees: Per federal regulations, pre-enrollment fees (Confirmation Fee, Orientation Student Fee and Orientation Guest Fee) can no longer be deferred to the fall bill. Therefore, a process was developed in myNKU to allow the student/parent to pay these fees via credit card. E-check functionality already existed.

### myNKU Human Resources

- ESS/MSS Time Entry: Go-live of the online recording of time worked and absences through the Employee Self-Service tab, as well as approval through the Manager Self-Service tab in myNKU.

- Revisions to KERS interface: Additional requirement changes based on new regulations per Senate Bill 2.

- BSI Tax upgrade and HR support packs: Upgraded to BSI Tax Factory 10.0 (the software SAP uses for all tax updates) to stay within compliance of federal, state and local tax regulations.

### myNKU Finance

- Fixed Asset Location Updates for End Users: Created functionality to allow department administrators to update the building and room number of moveable assets such as computers, printers and office furniture.

- Cost Center Workflow Master Data: Created forms and workflow for requesting creation of new Foundation and University accounts.

### myNKU Reporting & Analytics

- Student Life Activity Reporting: Extracted OrgSync data into Business Warehouse to help with student retention initiatives.

- BW Repository and Data Dictionary: This self-serve application allows campus users to pull information at the time they need it and provides information about BW reports and the fields in those reports.

- Grants Management Reporting Application: Provided a reporting interface for Principal Investigators to efficiently maintain and reconcile their grants.

- Analytics Software Implementation: Set up and installed the necessary software and hardware to support Business Objects for analytics.

### Mobile

- iNKU mobile app was re-branded in collaboration with Marketing + Communications. The design was improved, content was added and it is now compliant with both the new Apple operating system iOS7 and Android.

- Created a new mobile app at the request of CINSAM to support the College of Arts & Sciences.

- NKU Admissions mobile app n@NKU was re-launched as NKU Admissions. The design was improved, content was added and it is now compliant with the new Apple iOS7; continued development will make it a universal app that will work on all types of devices.

- GoNorse mobile app for Athletics was upgraded and is now compliant with the new Apple iOS7 and Android. New functionality was added allowing push notifications to be issued by Athletics.

- International Admissions mobile app was created and will be available in Chinese to support international recruiting of students in Asia. The new app is available for both Android and Apple. We are collaborating with the sponsor to announce its availability.
Paperless and Efficiencies

- Specific paperless projects included: International Education Center study abroad process, College of Education and Human Services clinical experience, Legal Affairs Code of Conduct and Testing Services request form.
- Document imaging system expanded to include an additional 12 advising departments and 7 departments. Approximately 4,000,000 pages have been converted to electronic format to date.
- Electronic RPT portfolios: 28 faculty opted in for fall 2013, and 23 new faculty provided submissions in spring 2014.
- WebEx virtual meeting software made available for faculty and staff. To date, we have hosted 2,000 events, and the software is now being used in classrooms as well.

Other

- Supported the transition of Chase IT Operations to central OIT.
- Created SharePoint site to support improving efficiencies in the planning and coordination of University Executive and Operating team meetings.
- EAB Gates Research Participation: This project, within the Bill and Melinda Gates Foundation’s work on Maximizing Resources for Student Success, explores the drivers for increased spending in higher education. Through a comprehensive, academic-style analysis of institutional data, EAB will create a “research-informed composite university,” to build a fact base for education community.
- Negotiated a three-year contract with Adobe to allow all faculty/staff access to Adobe Creative Cloud software. The contract will reduce university costs by centrally administering distribution of software and funding required while allowing all faculty and staff access to the software suite.
- Processed the 2014 computer replacements as scheduled. Included replacement of lab machines, faculty machines and administrative machines.
- In terms of streaming content, NKU is ready for fall 2014 sports according to the requirements of the Atlantic Sun Conference (A-Sun) to stream 60 sporting events a season. IT records and produces these events. Athletics, the A-Sun and IT continue to work together to improve the video recording equipment as necessary.
Strategy # 3: Strive for IT Excellence

This plan of action aims for the highest standards of excellence in every dimension of our work, including service, resource management, policies and standards.

Governance

- Better documentation of business processes, formalized service level agreements, catalog of services and modifying the Campus Technology Plan to support the impending NKU Strategic Plan. Improved transparency of IT Operations by:
  - Developing additional structure and improved communication for four IT programs: Computer Replacement, Smart Classrooms, Wireless and Academic Software.
  - Meeting with all new department chairs to share important dates and activities so they can better understand and interact with IT.
  - Creating websites to provide transparency for the ITAC and myNKU governance organizations.
- In partnership with Institutional Research (IR), initiated the Data Governance Committee charged to recommend and oversee the implementation and management of a formal data governance program that functions across the enterprise. This will entail an agreed upon common set of policies, standards, methodologies and processes enacted to safeguard that institutional data is managed in such a way that the interests of the university and individuals are addressed in a fair, legal and appropriate manner.

Project Management

- Working collaboratively with IT leaders, processes and templates for project submission and for running projects were documented to clarify roles and responsibilities. Rollout plan is currently underway. The process and the templates will change over time as the Project Management Office (PMO) matures within IT.
- Project managers expanded responsibilities outside of myNKU into other IT areas such as supporting mobile and web efforts along with infrastructure initiatives.
- A roadmap for Project and Portfolio Management is presently being created to identify our software options to support project management and service management to improve customer service, transparency and internal operations.

Communications

A plan for calendar year 2014 plan was approved early in the year and implementation is underway.
STRATEGY # 4: STRENGTHEN THE IT INFRASTRUCTURE

This strategy addresses ways to build upon the university’s current information technology infrastructure, creating a more powerful and secure foundation for daily use and in the event of a disaster.

On-campus Network and Wireless Coverage

- A wireless audit was conducted on campus to determine weak spots. Improvements are currently focused on the Student Union, Griffin Hall and Landrum Academic Center.
- Upgraded 150 wireless access points across campus.
- Bandwidth increased (main campus bandwidth increased to 500 MB, residential village bandwidth increased to 300 MB; additional increases planned for residential village during summer 2014.)
- Thus far, renovations to the Campus Recreation Center have included guidance on the multimedia needs of the area for digital signage, multimedia systems, projection systems and audio systems.
- The content management system supporting the university’s website was upgraded to a new version providing critical tools necessary for the next steps to move to mobile friendly websites.
- Switched to a Session Initiation Protocol (SIP) Trunking connection, a VoIP (voice over internet protocol) service, which connects NKU’s phone system to the Public Switch Telephone Network via the internet, combining the voice and data network onto a single, unified data connection.
- Completed annual myNKU upgrade that provided important updates to the system, from regulatory compliance to updates in browser and operating system compatibility. Added new features that make the system easier to use.
- Blackboard was upgraded to version 9.1 service pack 14, which added the following functionality: Test Access Log, Progress Tracker, Groups Management, Date Management, Grade Center Improvements, My Grades Ordering & Design Update, Inline Assignment Grading Update, Inline Grading Tools Updates.
- Replaced the SAP Storage Area Network (SAN) to enhance performance of myNKU and prepare for future upgrades. This increased overall space for SAP, preparing for analytics, increasing SAP system performance, enabling the old SAP storage space to be used to increase email and personal drive quotas (still to be implemented).
- Replaced the 7 year old Cisco load balancer with a new f5 load balancer (a load balancer is a device that distributes network traffic across a number of servers according to the demand by users at any given time). Systems such as myNKU, Blackboard, web and email will utilize this new load balancer and users will experience better response time.

By the numbers...

**Email**
- 575,000 emails processed daily
- 750,000 emails blocked as spam daily

**Storage**
- 100 terabytes of data stored
- 79 physical servers
- 410 virtual servers
- 475 routers and switches

**Printing**
- 342,929 print jobs processed
- $106,102 in free prints for students

**Wireless**
- 1,222 access points supporting 9,000 concurrent devices

**Labs**
- 85 computer labs on campus

**Service**
- 26,043 service requests

**Events**
- 18 campus events streamed
- 62 athletic events streamed