



FY17 Annual Report



OFFICE OF
Information Technology

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.

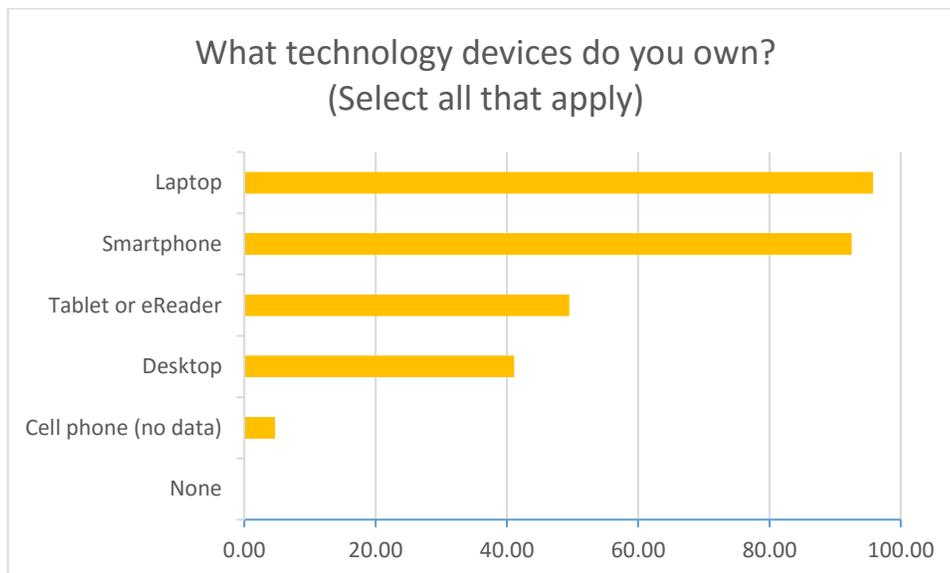
Governance and Collaboration

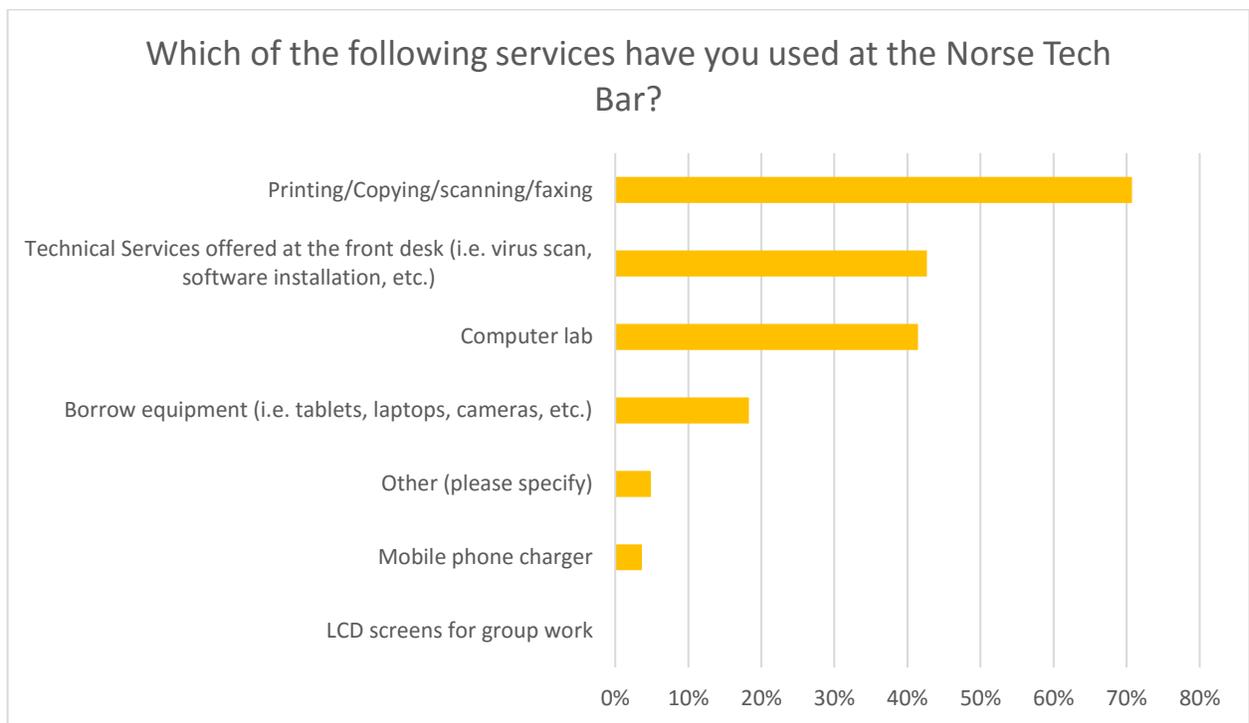
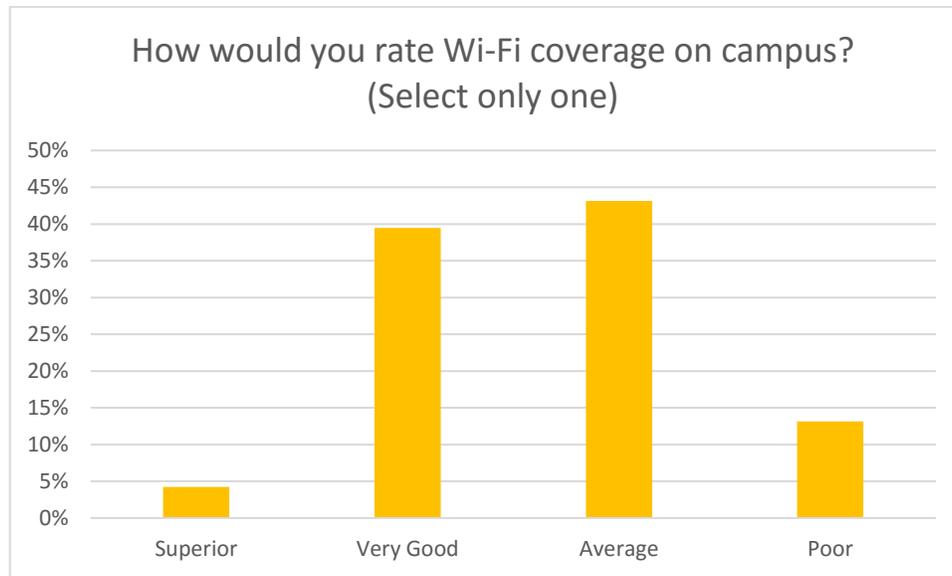
To support communication, decision making and prioritization, NKU has several key organizations that OIT works collaboratively with including:

- IT Policy Council – This council is composed of members of the President's executive team or their designee. They meet on a monthly basis to discuss/approve IT policies and projects affecting the campus community.
- 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 STUDENT SURVEY FY17

214 surveys submitted





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 is a list of technology to watch, trends and issues.

Top 10 IT Issues, 2017

1. *Information Security*: Developing a holistic, agile approach to reduce institutional exposure to information security threats
2. *Student Success and Completion*: Effectively applying data and predictive analytics to improve student success and completion
3. *Data-Informed Decision Making*: Ensuring that business intelligence, reporting, and analytics are relevant, convenient, and used by administrators, faculty, and students
4. *Strategic Leadership*: Repositioning or reinforcing the role of IT leadership as a strategic partner with institutional leadership
5. *Sustainable Funding*: Developing IT funding models that sustain core services, support innovation, and facilitate growth
6. *Data Management and Governance*: Improving the management of institutional data through data standards, integration, protection, and governance
7. *Higher Education Affordability*: Prioritizing IT investments and resources in the context of increasing demand and limited resources
8. *Sustainable Staffing*: Ensuring adequate staffing capacity and staff retention as budgets shrink or remain flat and as external competition grows
9. *Next-Gen Enterprise IT*: Developing and implementing enterprise IT applications, architectures, and sourcing strategies to achieve agility, scalability, cost-effectiveness, and effective analytics
10. *Digital Transformation of Learning*: Collaborating with faculty and academic leadership to apply technology to teaching and learning in ways that reflect innovations in pedagogy and the institutional mission

Source: www.educause.edu

FY17 ACCOMPLISHMENTS

MyNKU

The myNKU teams completed 99 projects in FY 17. Projects of note are listed below.

myNKU Finance

IB & Recode Workflow Completed the forms and workflow processes for interdepartmental bills and other department requested accounting transaction recodes. This project allows the University to process interdepartmental bills efficiently, improving internal communication, reducing paperwork, and saving time.

Implementation of Oracle PBCS Budget Software Assisted the Budget Office with the implementation of the PBCS software, including development, integration with SAP, testing, documentation, and training.

Technology Procurement change Enhancement to the procurement purchase requisition workflow to include Information Technology approval for all technology purchases over \$500.

myNKU Human Resources

Annual Employee Compensation Process Enhancements were implemented in Manager Self Service (MSS) for faculty and staff to receive their annual increases via ECM. Upon completion of ECM, new salary letters were provided to employees.

Development of an Email Notification sent to the ESS time administrators which have employees with unapproved time. The email is sent to the time approver with the pertinent employee information so that time can be approved by the payroll deadline.

Online W2 Process Improved upon the online W2 process so that employees will be able to enroll via ESS starting in late October. This will allow the employee to receive their W2 electronically via the myNKU portal.

myNKU Reporting & Analytics

Reconciliation Interface Developed a new reporting product that will assist employees with their reconciliation efforts by centralizing reports required during monthly reconciliation into a single browser-based application. This reduces navigation and redundancy in data entry with standard FI queries.

Weekly Enrollment Report A report run for the Office of Enrollment Management starting when enrollment opens for a given semester through census; this compares current enrollment activity to the previous equivalent term.

Daily Enrollment Report Compares daily enrollment activity to prior day, previous equivalent term, and the past five years for the Office of Enrollment Management.

myNKU Student Life Cycle Management

Academic Planning (Graduation Planning System – GPS) Created a new system that allows students and advisors the ability to plan and monitor a student's academic career at NKU. The system is mobile friendly. Release 1 of a 5 release schedule was released in FY '16/17.

Ad Astra Upgrade Implemented a major upgrade of the Ad Astra room scheduling system. Changes include enhancements to automated processes and software. An upgrade had not been completed in 5 years due to bugs in the Student Union Event Scheduling functionality. NKU partnered with Astra to resolve the bugs in order to upgrade.

Degree Audit (Graduation Planning System – GPS) Created a new mobile friendly user interface, and updated behind the scenes processing for the existing Degree Audit system. Release 1 & 2 of a 5 release schedule were released in FY '16/17.

Educational Advisory Board Student Success Collaborative Project Provided the necessary support to enable NKU to become part of the Educational Advisory Board's Student Success Collaborative.

Event Planning Phase III Implemented automated workflow into the event planning system.

Gender Identity and Pronoun Initial changes were made to the student system to allow LGBTQ Services the ability to update a student's gender and pronoun upon formal student request. This information will be displayed on the system and the class roster.

NorseAlert myNKU Integrated the NorseAlert sign-up and account maintenance with the myNKU login page, for improved security and emergency management. NKU faculty, staff, and students will be prompted every six months to verify or update contact information. The ability for anyone to sign up for Norse Alert was implemented so you no longer must be a NKU student or employee to request alerts.

Tuition Updates Changed our system to accommodate tuition increases, new programs, new courses and updates to existing rates and fees.

Enterprise Systems/Development

Mobile App Development Updated the NKU app to include NKU email and single sign-on, and added features such as contact IT technical support.

NKU.edu Redesign A mobile first, audience focused website based on professional research and design. New technical features include video, pop on hover, and parallax images. In conjunction with Marketing and Communication, NKU launched the new external user focused NKU.edu.

Infrastructure and Operations

Annual Upgrades of Primary Systems

Completed the SAP Support Packs and Blackboard upgrades. Full version upgrade of AIX operating system on the IBM servers.

Computer Replacements Completed annual computer replacement project for faculty and staff.

Firewall Redundancy Updated the campus firewall to provide redundancy better protect the network.

Orientation, Governor's Scholars, and Summer Spark Fulfilled the technical needs for the summer programs including computers, accounts, printing, etc.

Networking Upgrades Installed 40 new Universal Power Supply (UPS) in networking and data closets, network switches in Landrum, and Wireless Access Points (WAPs) in dorms.

SAN Upgrade Replaced aging Netapp SAN with EMC Unity 400 hybrid array. Replaced tape-based backup storage with EMC Isilon Network-Attached-Storage (NAS)

SAP Upgrade Applied support packages and patches so all SAP corrections are implemented for our system of record. SAP recommends the application of support package stacks at least once per year.

Smart Classroom Updates Updated equipment in designated smart classrooms across campus.

VoIP Upgrade upgraded Cisco VoIP software

Statistics

Emails processed daily

- Sent off campus: 20,000
- Received: 150,000
- Blocked spam emails: 80,000

Hardware/Software

- Terabytes of data stored: 500
- Physical servers: 84
- Virtual servers: 375
- Routers and switches: 450
- Wireless access points: 1700
- Supported concurrent devices daily 16,000

Printing

- Print jobs processed: 298,261
- Value of student printing allowance: \$114,024.60
- Students paid prints: \$18,619.21

Resources

- Smart classrooms updated this year: 8
- Service requests recorded: 26,499

Streaming

- Campus events streamed: 12
- Athletic events streamed: 62
- Events supported: 83

Tech Team

- Computer Replacements: 556
- Software titles supported: 300
- Computers in 53 labs supported by IT: 1109

IT Central

Training

Adobe Muse Trainings to create faculty websites

Cyber Security Developed a video of 'Top 10' things to know

New Website Training Template Developed a new website training program and permission process to train users, create their new site, and assign permissions. Facilitated over thirty 1.5 hour in-person training sessions for web editors.

Online Versions of SAP Trainings Finalized SAP online training

Shadow budget database Assisted with creation and training of shadow budget databases for various departments.

Templates Creation of new training documentation templates

Norse Tech Bar

Services Upgraded 30 laptops loaned to students as well as 5 webcams and 10 iPads. The Norse Tech Bar processed 3,257 service tickets, which included 1336 equipment checkouts.

Workspace reconfigured workspace to add additional desk space to accommodate 4-6 students in a 'bring your own device' space.

Communications

Service Catalog Phase 2 Incorporated service catalog into IT website.

Student Technology Survey Revised and distributed the Student Technology Survey.

Business & Finance

Learning Management System – Pilot Program Pilot program to review Blackboard Ultra and Canvas to determine NKU's future LMS



Project Management

New Budget Model Purchased a new software to manage the new budget model (Oracle PBCS). We are working with consultants to implement this product and train campus users on the new software for the start of the FY18-19 budget cycle.

Student Portal (on.nku.edu) In January 2017, launched the Student Portal which gave students a centralized location to access via single-sign on applications commonly used.

HIC – Phase 2 Selected a new AV/Networking Design company to assist in completing the drawings for the entire project. Will be putting out an RFP for AV installer.

LMS Pilot Participated in a Learning management System pilot of Canvas and Blackboard, ultimately determining that Canvas will be our new LMS with conversion of courses taking place during the 2017-2018 academic year.

Management Dashboard Created a robust reporting and dash-boarding tool for chairs and deans to notice trends in their programs, increase decision making and respond quickly to grant, university and state requests.

REFS (Research and Education Field Station) Supported NKU's Research and Education Field Station by providing technology consultation, wireless access points, and audio/video technologies for the Field Station.

Policies

New Policies Three new policies were written, approved, and have been posted on the Policy web page: Electronic Signature Policy, Information Security Policy, and IT Incident Response Policy.

FY18 IT OBJECTIVES

Fuel the Flame Strategic Plan

Goal 1 Student Success

Provide a supportive, student-centered educational environment that promotes academic success, global awareness and timely graduation.

1.5 Promote financial access and affordability for students

b) Increase availability of on-campus student employment

IT Objectives	Primary	Also Supports	Begins
<ul style="list-style-type: none"> Continue to provide IT employment to a large number of student workers enabling real-world experience upon entry into the workforce. 	1.5b	2.3a, 2.4b	Ongoing

Goal 3 Academic Innovation

Advance academic programs that are innovative, distinctive, experiential, and transdisciplinary.

3.3 Develop programs and course delivery methods that meet the diverse needs of our student body

a) Grow online, hybrid and flexible programs and courses to serve the diverse needs of our students and the region

IT Objectives	Primary	Also Supports	Begins
<ul style="list-style-type: none"> Support the expansion of online courses and programs (e.g. access to university technology resources, collaboration tools, enhancements of communication). 	3.3a	1.1c, 5.6a, 5.6b	FY18
<ul style="list-style-type: none"> Support the upgrade of classroom technologies to enhance the delivery of instruction. 	3.3a		FY18

Goal 4 Community Engagement

Engage with community partners to catalyze regional growth and vitality.

4.1 Expand partnerships with business, government, education and non-profit organizations

c) Enhance outreach activities in P-12 schools to improve college readiness

Objectives	Primary	Also Supports	Begins
<ul style="list-style-type: none"> Continue to provide support to the strategic planning efforts of other areas within NKU with a focus on retention (e.g. EAB, Admissions CRM). 	4.1c		FY18
<ul style="list-style-type: none"> Continue to support summer outreach/retention programs (orientation, GSP, Summer Spark, etc.). 	4.1c	2.1b	FY18

Goal 5 Institutional Excellence

Strengthen the capacity of the University to fulfill its mission and achieve its vision.

5.2 Generate new resources from public funds, private giving and other revenue streams

d) Engage in entrepreneurial activities that generate additional revenue

Objectives	Primary	Also Supports	Begins

<ul style="list-style-type: none"> Collaborate with University departments to apply for at least 1 grant or find ways to market existing resources to increase funding (e.g. 3V and National Science Foundation). 	5.2d		FY18
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5.3 Secure our financial future through strategic and innovative investments, partnerships and resource management

- a) Develop an all-funds approach to budgeting and ensure budget processes align resources with strategic goals
- b) Steward resources wisely and efficiently to achieve goals
- c) Assess and modify administrative and support services for quality, relevance and sustainability

Objectives	Primary	Also Supports	Begins
<ul style="list-style-type: none"> Support the Budget Office in Phase II of the new budget model (e.g. budget software, integration and reporting functionality). 	5.3a	5.3b, 5.3c	FY18
<ul style="list-style-type: none"> Ensure all cloud computing options are secure and robust (e.g. review SAP, accessibility, and other software in terms of cloud possibilities).* 	5.3b	5.3.a, 5.3c, 5.4d, 5.4f. 5.6.b	FY15
<ul style="list-style-type: none"> Continue to strengthen software and service sourcing by reviewing contracts routinely (e.g. learning management system, content management, Adobe, AVID).* 	5.3b	5.3c	FY16

**A metric we report quarterly for Fuel the Flame.*

5.4 Improve organizational effectiveness

- a) Update and streamline university policies
- b) Strengthen regulatory compliance and risk management efforts
- c) Use data analytics to enable actionable insight
- d) Enhance internal communications and transparency
- e) Increase environmental sustainability efforts across the campus
- f) Improve cross-divisional collaboration and continue to elevate service standards

Objectives	Primary	Also Supports	Begins
<ul style="list-style-type: none"> Create additional policies around texting and data center access, and review existing policies 	5.4a	5.4b	FY18
<ul style="list-style-type: none"> Research and recommend secure communication methods for reducing the University's risk associated with FERPA, HIPAA, and other regulatory requirements related to confidential or personally identifiable information 	5.4a		FY18
<ul style="list-style-type: none"> Enhance the IT security program to identify and reduce IT security risks, address security audit findings and meet legal requirements for the University (e.g. critical systems access review, support the PCI compliance campus implementations, improve mobile device encryption, enforce inactivity lockout times for local PCs). 	5.4b		FY18
<ul style="list-style-type: none"> Improve our disaster recovery capability by updating equipment (e.g. table top exercises and policy update and expansion). 	5.4b		FY18
<ul style="list-style-type: none"> Support EAB's Student Success Collaborative 	5.4c	5.4f	FY18

<ul style="list-style-type: none"> Leverage the reporting and analytics environment to streamline the accessibility and analysis of operational data (e.g. develop dashboards to help monitor a variety of operational metrics for internal decision making). 	5.4c		FY16
<ul style="list-style-type: none"> Continue to streamline SLCM Business Warehouse reporting environment to improve cross-campus decision making 	5.4c	5.4f	FY18
<ul style="list-style-type: none"> Explore data visualization tools for situations where quickly analyzing data at-a-glance would be beneficial (e.g. Qualtrics or Tableau). 	5.4c		FY17
<ul style="list-style-type: none"> Leverage data visualization tools to improve operational and strategic decision making 	5.4c		FY18
<ul style="list-style-type: none"> Integrate myNKU data with other data across campus to improve decision making, integrity, reduce complexity, and increase the value of NKU data. 	5.4c		FY18
<ul style="list-style-type: none"> Explore collaborative communication tools that meet the needs of faculty and business offices 	5.4d		FY18
<ul style="list-style-type: none"> Implement a project request process for all of IT services. 	5.4d	5.4f	FY18
<ul style="list-style-type: none"> Continue to Strengthen Communication (e.g. Norse Tech Bar Services) 	5.4d		FY18
<ul style="list-style-type: none"> Expand adoption of enterprise instant messaging tool Skype for Business (a.k.a. Lync). 	5.4d		FY17
<ul style="list-style-type: none"> Expand on best practices for customer service (e.g. SLAs, ITIL Best Practices). 	5.4f	5.4d	FY18
<ul style="list-style-type: none"> Review and improve Norse Tech Bar services (e.g. expand items available to loan) 	5.4f		FY18
<ul style="list-style-type: none"> Improve emphasis on staff development through the leveraging of strengths, providing professional development opportunities, and mentoring/shadowing/succession planning 	5.4f		FY18
<ul style="list-style-type: none"> Improve the efficiency of the IT organization by improved project tracking methods, organizational structuring, and through the use of V-Fire enterprise service management tool. 	5.4f		FY18
<ul style="list-style-type: none"> Improve change management processes per internal audit recommendations 	5.4f	5.4d	FY18
<ul style="list-style-type: none"> Facilitate the University's efforts towards better ADA accessibility (closed captioning, LMS, web redesign). 	5.4f	5.4a, 5.4b	FY17
<ul style="list-style-type: none"> Improve processes for annual IT programs (e.g. Computer Replacement, Smart Classroom). 	5.4f	Weave	FY18

**A metric we report quarterly for Fuel the Flame.*

5.6 Provide technology that supports effectiveness and innovation across campus a) Expand faculty capability to engage in technology-enabled learning b) Advance technological solutions that support integrated student services c) Improve administrative systems and data governance			
Objectives	Primary	Also Supports	Begins
<ul style="list-style-type: none"> Continue to enhance IT support for colleges and units (e.g. transition Chase to central IT technology standards, work with colleges to identify and update key virtual and audio/visual production technologies).* 	5.6a	5.6b	FY16

<ul style="list-style-type: none"> Explore new customer support models that will improve technology services to faculty/staff/students 	5.6a	5.6b	FY18
<ul style="list-style-type: none"> Expand the Virtual Desktop program and software available online.* 	5.6a	5.6b, 5.6c	FY16
<ul style="list-style-type: none"> Explore Learning Analytics tools with faculty to measure student performance. This can be used to target at-risk learners in an effort to improve student retention as well as support course redesign and personalized student learning.* 	5.6a	3.3a	FY16
<ul style="list-style-type: none"> Support the transition of our academic learning management system including infrastructure support, training and implementation. 	5.6a	5.6b	FY16
<ul style="list-style-type: none"> Support NKU's goal to expand online learning opportunities by providing technology solutions that facilitate faculty/student communication and technology tools that assist the online learning process (e.g. easy access to virtual labs/desktops, etc.).* 	5.6a	3.3a	FY16
<ul style="list-style-type: none"> Enable student mobility by promoting access to services.* 	5.6b		FY15
<ul style="list-style-type: none"> Upgrade athletics production options (e.g. streaming, BB&T wiring, etc) 	5.6b		FY18
<ul style="list-style-type: none"> Improve mobile application architecture 	5.6b		FY18
<ul style="list-style-type: none"> Continue to improve the student portal 	5.6b	Weave	FY18
<ul style="list-style-type: none"> Develop a faculty/staff portal enabling easier access to campus resources 	5.6b		FY18
<ul style="list-style-type: none"> Support the offering of online training courses, face-to-face workshops and reference materials for currently supported and newly emerging software systems used by the NKU community. (One Drive, collaborative communication tools, etc) 	5.6b	5.4f	Ongoing
<ul style="list-style-type: none"> Improve the wireless infrastructure in academic buildings and residence halls. (replace legacy access points and a new WLC) 	5.6b		FY18
<ul style="list-style-type: none"> Upgrade network infrastructure in multiple buildings (LAC, BC, FA, UC, etc) 	5.6b		FY18
<ul style="list-style-type: none"> Improve the efficiency and reliability of the campus technology infrastructure (telecommunications managed services, explore cloud options for disaster recovery options, upgrade infrastructure in Nunn Hall) 	5.6b		FY18
<ul style="list-style-type: none"> Continue to support NKU campus construction projects (e.g. Health Innovations Center, Founders Hall, etc.). 	5.6b	Weave	Ongoing
<ul style="list-style-type: none"> Support strategic initiatives for student success and student retention 	5.6b		Ongoing
<ul style="list-style-type: none"> Research and implement initial phase(s) of degree audit to help students plan class schedules and have clear insight into graduation requirements. 	5.6b	Weave	FY17
<ul style="list-style-type: none"> Research and implement initial phase(s) of academic planning to allow more efficient scheduling of classes and rooms. 	5.4c		FY17
<ul style="list-style-type: none"> Implement wait listing 	5.4c		FY18
<ul style="list-style-type: none"> Research and recommend a myNKU platform strategy 	5.6c	5.6b	FY18

<ul style="list-style-type: none"> • Research and Implement administrative system improvements for faculty/staff (e.g. Human Resources LMS) 	5.6c	5.6b	FY18
<ul style="list-style-type: none"> • Implement enhancements and upgrades to critical business applications (e.g. myNKU, Blackboard, Dirsync, Pharos, VMWare VSphere and VMWare View, Software Center Manager). 	5.6c	5.6b	FY18
<ul style="list-style-type: none"> • 			
<ul style="list-style-type: none"> • Assist business units with researching and implementing technologies to streamline their processes (e.g. course evaluation system, policy management software). 	5.6c	5.6b, 5.4f	FY17

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