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, hybrid, 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 the Office of Information Technology 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 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.

Accessibility Steering Committee – This committee is composed of faculty and staff focusing on initiatives to support Universal Design for Learning across all aspects of campus communication.

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.

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**IT STUDENT SURVEY FY20**

493 surveys submitted

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**What technology devices do you own?**  
(Select all that apply)

- Cell phone (no data): 3.9%
- Desktop: 24.5%
- Tablet: 39.1%
- Laptop: 95.5%
- Smartphone: 96.8%
How would you rate the wireless coverage on campus?

- Excellent: 24.7%
- Very Good: 48.5%
- Average: 24.5%
- Poor: 2.3%

What NKU mobile app features do you find most useful? (Select all that apply)

- Access to Canvas: 53.2%
- Access to Email: 50.1%
- I don't use the NKU Mobile App: 37.5%
- Grade Review: 28.1%
- Registration: 22.40%
- Degree Audit: 19.6%
- Academic Plan: 15.3%
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 trends and issues.

Top 10 IT Issues, 2020

1. *Information Security Strategy*: Developing a risk-based security strategy that effectively detects, responds to, and prevents security threats and challenges

2. *Privacy*: Safeguarding institutional constituents’ privacy rights and maintaining accountability for protecting all types of restricted data

3. *Sustainable Funding*: Developing funding models that can maintain quality and accommodate both new needs and the growing use of IT services in an era of increasing budget constraints

4. *Digital Integrations*: Ensuring system interoperability, scalability, and extensibility, as well as data integrity, security, standards, and governance, across multiple applications and platforms
5. **Student-Centric Higher Education:** Creating a student-services ecosystem to support the entire student life cycle, from prospecting to enrollment, learning, job placement, alumni engagement, and continuing education

6. **Student Retention and Completions:** Developing the capabilities and systems to incorporate artificial intelligence into student services to provide personalized, timely support

7. **Improved Enrollment:** Using technology, data, and analytics to develop an inclusive and financially sustainable enrollment strategy to serve more and new learners by personalizing recruitment, enrollment, and learning experiences

8. **Higher Education Affordability:** Aligning IT organizations’ priorities and resources with institutional priorities and resources to achieve a sustainable future

9. **Administrative Simplification:** Applying user-centered design, process improvement, and system reengineering to reduce redundant or unnecessary efforts and improve end-user experiences

10. **Integrative CIO:** Repositioning or reinforcing the role of IT leadership as an integral strategic partner of institutional leadership in supporting institutional missions

*Source: [www.educause.edu](http://www.educause.edu)*

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**FY20 ACCOMPLISHMENTS**

**MyNKU**

The myNKU teams completed nearly 112 projects in FY 19. Projects of note are listed below.

**myNKU Finance**

**W-4 Forms** – implemented IRS 2020 revisions and system tax table changes.

**2019 Inventory** – new process created and Inventory Asset Amount changed to $2500

**myNKU Human Resources**

**Annual IRS Tax Tables** – Updated the IRS Tax tables.

**Benefits Annual Enrollment** -- Process including transition to Express Scripts for medical prescriptions.
Express Scripts – IT implemented vendor data file feed requirements for the new prescription vendor.
W-4 tax forms -- Upgraded W-4 tax forms per legal requirements.
Universal Working List -- PAR workflow transition to Fiori myInbox

myNKU Reporting & Analytics

Recruitment, Enrollment, and Retention Dashboards -- Developed four dashboards with nine unique pages analyzing critical recruitment, enrollment, retention metrics, and actionable reports. Metrics include the following:

- Recruitment
  - Yield rate
  - Geographic profile
- Enrollment
  - Enrollment activity by class level
  - Performance versus projection
  - Progress towards College enrollment goals
  - Preliminary gross tuition revenue versus a year ago
- Retention
  - Retention rates for key demographics as identified in Success by Design
  - Progress towards retention goals

Reporting and Analytics Data Community -- This resource is a result of our BW end-user survey conducted in spring 2019 as part of a Graduate Capstone Project in Industrial-Organizational Psychology. The Canvas (course) community includes training courses (BEx Web Analyzer, Excel, and Advisor Toolkit), document repository, and discussion posts to connect others and share ideas. In addition to our own discussion posts (the “Not so Scary” series and the “What would R&A do” series), we also partnered with many other offices on campus to share our “Top 3-5 Things to Know about our Data” series, which resulted in 8-10 new Data Community users per post. We currently have over 200 users, with accounts for 48% of the BW end users accessing the system within the past 12 months.

myNKU Student Life Cycle Management

Academic Partnerships (AP) -- promotion and automation of manual process to apply promotional discounts to Accelerated Online Learning (AOL) student’s accounts.

NKU CARES – Created an application, tracking, and payment system for student to apply for Federal CARES funding.

Healthy@NKU – Created phase 1 of Healthy@NKU application from faculty and staff complete a COVID-19 health questionnaire prior to being on campus.

Common app implemented -- Allows students to apply to NKU using the Common app used by many colleges and universities.

Security
1098T – Implemented the 2019 federally mandated updates to the 1098T process.

Accessibility Compliance – Assistance provided to Campus through Ally for LMS and Ally for Web

Data Center Access Review – Waiting on policy creation. New call boxes and cameras have been installed at the data center access points to enforce this new policy. Those who do not need access have been removed.

2019 Fiscal Year Financial Audit -- There were 3 recommendation-level (minor) findings in the annual report that were remediated throughout the fiscal year. The external financial auditor reviewed and confirmed that the remediation and controls added to address all three findings were sufficient. All three items have been closed out successfully.

GLBA Compliance – GLBA is ramping up as of May 2020. Policy and Standards are actively being developed. This is an audit and compliance requirement.

Paymetric implemented -- Paymetric is a secure payment gateway for processing credit cards. NKU has used Paymetric for a few years for tuition payments and has been expanded to now include Admissions, Confirmation, and Orientation payments. This replaces the current and less secure Authorize.net. Paymetric is fully PCI compliant and helps reduce NKU’s burden to comply with PCI regulations.

PCI Compliance -- This tracking is to be completed by July 2020. This is an audit and compliance requirement.

Risk Assessment -- Two risk assessments were reviewed and confirmed by the ERP and Infrastructure teams. High residual risks were prioritized for remediation and corrective action plans are being processed. An internal risk assessment will be conducted in FY21 to gauge remediation and risk reduction to the FY20 baseline external assessment.

ISILON Refresh -- Upgrading of our main storage array, completed in late 2019.

Directory update -- Modified faculty titles to reflect rank and tenure.

Network Port Security Project – Completed in fall of 2019 to prevent network loops or unauthorized extending or bridging of the network.

University of Kentucky College of Medicine Student Data -- Data integration project, completed on schedule in advance of the inaugural semester in fall 2019. This work will repeat every semester with changes to enrollment.

Enterprise Systems/Development

Alumni Mobile Solution – an alumni profile was added to the NKU mobile application. The alumni profile allows alumni one place to find valuable Alumni information

Personalize / Mobilize (FIORI) -- implemented phase 1 of many to make myNKU functionality for faculty and staff mobile friendly. Student updates to myNKU have been ongoing for 12+ months and will continue. This incorporates the replacement of the Universal Worklist for workflow management with My Inbox, My Outbox and My Workflows.

Mobile App Development Updated the NKU app to include upgraded single sign-on, and continued upgrades to student myNKU mobile functionality. FY 20/21 student bill pay and financial aid.
Infrastructure and Operations

**AEM Website Touch User Interface** – Web software (AEM) upgraded to 6.4

**Symplicity Accommodate** – software implemented by IT for the Office of Student Accessibility to assist students needing accommodations to learn effectively

**EAB expanded student load selection** -- enhanced the EAB Navigate student load to include new students who have registered for classes at NKU.

**Campus Rec** – FUSION software was implemented allowing patrons to sign waivers and make reservations online.

**Health Innovation Gallery Center implemented**-- Containing state-of-the-art equipment that can be used for health education projects and research. IT assists with the use of the tech in the room which includes: 3D printer, several 3D models and tools, and Virtual Reality equipment that includes a Vive Pro supplied with several educational VR applications.

**Innovation Chats** – conducted by IT staff on variety of innovative technology subjects to help faculty and staff become more aware of innovative technology

**Callahan switch and router replacement** – for more efficient network throughput for both Callahan Hall and Northern Terrace, yet to be completed.

**CISCO phone conversion** – Hardware received and all NEC handsets have been replaced with Cisco handsets.

**Computer Replacement Distribution** -- 200 laptops were distributed to students, faculty, and staff to support remote teaching, working and learning. Distributions were handled by the Client Support Specialists and the Norse Tech Bar.

**Cisco Unified Call Manager Upgrade** – This unlocks newer calling and collaboration features for our Cisco phone system.

**EMS Centralized scheduling** -- EMS, Event Scheduling Software, has been implemented for the Student Union, University Center, Campus Recreation, Athletics, and Housing. Benefits include mobile scheduling, a 24-hour scheduling calendar since Campus Recreation hosts overnight events and integration with Campus Recreation meeting minders to display what is scheduled for each room. The move to EMS also provides the Student Union an event scheduling software in set-up and tear-down functionality. The move also allows the Registrar’s Office to stay on the current version of Astra.

**Decentralized Tech Support** – Technicians are relocated within academic buildings to be more accessible to remediate technology problems and offer support

**College of Education & Human Services Reorganization** –The programs in Teacher Education and Educational Leadership will merge to form the new College of Education (COE), while the College of Health Professions will become the College of Health & Human Services (CHHS), combining with the department of Kinesiology and Health and the department of Counseling, Social Work and Leadership. Therefore, the College of Health & Human Services will consist of four schools:

- The School of Allied Health
- The School of Kinesiology, Counseling and Rehabilitative Sciences (currently in COEHS)
- The School of Nursing
The School of Social Work (currently in COEHS)

Science Center switch upgrade – increased network throughput and Wi-Fi coverage in the Science center.

SQL Server 2017 – Migrating to a newer version of operating system and to a virtualized SQL environment. This project is ongoing.

2019 SAP upgrades -- completed the yearly SAP upgrades to the finance, HR, and student systems to insure NKU is up-to-date with security patches and software process updates.

Moved Ad-Astra -- to a cloud-based solution. Now that NKU is on Astra Cloud, the Registrar’s Office will be able to stay current with Astra upgrades from this point forward.

Campus List Serve – New software implemented allowing for more granular management and tracking.
Training / Web

**Qualtrics** -- Developed series of self-paced training videos hosted in Canvas.

**Adobe AEM** -- Developed and implemented Web Accessibility Training for all web editors on campus.

**IT Website** -- Created new webpages focusing on technology and services for faculty, staff, and students while working remotely.

**INTER-Alliance Tech Olympics** -- IT held a technology session during Tech Olympics for High School students.

**INTER-Alliance** -- High school talent used to complete NKU tech projects. Providing real-world experience to the students and providing IT support to departments requesting technology projects. Additionally, this frequently leads to the INTER-Alliance students coming to NKU to get their bachelor’s degree.

**IT Website Update / Refresh** -- to make it easier to search for IT amenities and services

**Office 365 Licensing** -- upgraded to A5 protocol; saving NKU on licensing costs while unlocking new applications such as Power BI and Bookings.

**Student IT Analyst Program implemented** -- Six technology talented students were provided with an IT project and mentor to learn to manage an IT task from start to finish. This experiential learning opportunity provided students with the ability to experience advanced technology projects and professional development in a ‘real world’ setting.

**Norse Tech Bar**

**Services** -- The Norse Tech Bar processed 2442 service tickets which included 973 equipment loan checkouts.

**Workspace** – Replaced all the computers in the open lab (15 Dells, 4 Macs) to comply with updated hardware requirements to fulfill student needs.

**Accessibility**

**Accessibility Compliance using Ally for Web** -- identifies accessibility issues on the NKU web site to help get to a web site that is accessible to all without limitations. Improved score overall

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**Statistics**

**Emails processed daily**
- Sent off campus: 25,000
- Received: 220,000
- Blocked spam emails: 125,000

**Hardware/Software**
- Terabytes of data stored: 600
- Physical servers: 70
- Virtual servers: 350
- Routers and switches: 600
- Wireless access points: 3,000
- Supported concurrent devices daily: 9,000 wireless, 6,500 wired

**Printing**
- Print jobs processed: 168,094
- Student printing allowance value: $72,541.69
- Students paid prints: $12,340.06

**Resources**
- Smart classrooms updated this year: 4
- Service requests recorded: 24,256

**Streaming**
- Campus events streamed: 6
- Virtual events streamed: 22
- Athletic events broadcast: 56
- Events supported: 192

**Tech Team**
- Computer Replacements: 264
- Software titles supported: 320 +
- Computers in 53 labs supported by IT: 1109
**Accessibility Compliance using Ally for LMS (Canvas)** -- identifies faculty files added to courses that need remediation to become accessible for all students.

**Live Streaming** – Emphasized to campus for online course work and events.

**WebCam and Enhanced Microphone Kits** – deployed to academic buildings for faculty to use to improve viewing / hearing of online courses.

**Digital Communication Improvement** – through the use of alt text on images.

**Communications**

**IT Website Redesign** – To incorporate better searching through the NKU IT website.

**Student Technology Survey** -- Revised and distributed the Student Technology Survey to help determine where students thought IT did well, and where there are opportunities for improvement, especially with the transition to remote learning during the pandemic.

**Employee survey** – Surveyed faculty and staff for what worked and where they needed additional assistance with the COVID-19 transition to remote teaching and working.

**Project SEARCH** -- Supported Norse Project SEARCH by employing an intern from Campbell County High School to test website accessibility functionality.

**Computer Replacement Program**

**Computer Replacement Purchases** -- A total of 264 devices were purchased this fiscal year.
Project Management

**Paymetric Conversion** -- The offices of Admissions and Graduate Admissions have converted credit card payments from Authorize.net to Paymetric in order to reduce our PCI compliance burden and enhance security on credit card payments for Admissions, Confirmation and Orientation Fees. This project was completed in June 2020.

**Ally for Canvas** -- Ally was purchased to enhance our accessibility practices within our Learning Management System (Canvas). Ally assists creators of Canvas content to point out areas in which materials are not accessible of have some issue related to accessibility as well as tips to help fix the underlying issue. This project was completed in January 2020.

**1098T Upgrades** -- Numerous changes to the 1098-T IRS reporting process changed. This project was a coordinated effort with SAP developers to update these changes for NKU and the other SAP schools using the 1098_T program. This project was completed in March 2020

**College Reorganization** -- Completed October 2019. The programs in Teacher Education and Educational Leadership will merge to form the new College of Education (COE), while the College of Health Professions will become the College of Health & Human Services (CHHS), combining with the department of Kinesiology and Health and the department of Counseling, Social Work and Leadership. Therefore, the College of Health & Human Services will consist of four schools:
- The School of Allied Health
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- The School of Nursing
- The School of Social Work (currently in COEHS)

**Astra to Cloud** -- Completed October 2019. Moved Astra to a cloud-based solution. Now that NKU is on Astra Cloud, the Registrar’s Office will be able to stay current with Astra upgrades from this point forward.

**Event Management Software (EMS)** – Centralized scheduling that was launched in October 2019. EMS is used by the Student Union, Athletics, Campus Rec, and Housing for meetings and event scheduling.

Policies

**New Policies** -- Two new policies were written and approved: Digital Accessibility Policy and the Procurement of IT Policy.

IT Objectives FY21

**Access** - NKU will expand programs, services, and delivery options to increase access and become a preferred destination for learners across the Commonwealth of Kentucky, the nation, and the world.

**Completion** - NKU will align the institution so more learners—particularly first-generation, post-traditional, low-income, and underrepresented individuals —earn highly-valued degrees, certificates and credentials.

**Career & Community Engagement** - NKU will increase its contributions to the economic, social, and civic prosperity of the region through talent development, research and innovation, & stewardship of place.
1) **Access**: Support summer outreach programs by providing accounts, equipment, and technical support (Governor’s School for Entrepreneurs, Summer Spark, etc.)

2) **Access**: Participate in review and recommendation for improving NKU’s equipment inventory process (RFID, policy recommendations, etc.) Cleanse, expand, and improve MS SCCM and JAMF (centralized computer hardware and software management) tools for better, more accurate and reliable reporting and functionality to account for 75% or better of the active managed assets accounted and managed.

3) **Access**: Address audit findings and federal/state compliance requirements. Address and remediation of critical and high-risk items identified in 2018 and 2020 penetration tests and risk assessments
   - Maintain governance and compliance of PCI-DSS compliance. Address compliance requirements when projects, changes, or upgrades necessitate (ex. SOTA credit card handling once post-COVID operations resume) 6) Yes rollover with goal to 90% or greater GLBA compliance achievement for campus operations.

4) **Access**: Determine a classroom technology standard that encompasses digital solutions which enhance the learning process in a fiscally prudent manner

5) **Access**: Implement the ITSM module of Team Dynamix to improve our customer experience and expand the capabilities of IT Staff

6) **Access**: Redevelop the approach to beginning of semester technology support.

7) **Access**: Streamline our wireless offerings to provide more secure and logically diverse services

8) **Access/Completion**: Enable student mobility by adding new and enhancing existing services that will support broadening access and making it easier for students to complete requirements. (Fiori, etc.)

9) **Access/Completion**: Enhance and improve classroom technology equipment and services to expand access and support student success toward their degree completion.

10) **Access/Completion**: Advance data security initiatives (policy, vendor mgt., education, etc.). Address 90% or greater critical and high vulnerabilities by the end of fiscal year 21.

11) **Access/Completion**: Research and implement additional phases of degree audit so that students have a clear understanding of graduation requirements in support of student access and completion

12) **Access/Completion**: Research and implement additional phases of academic planning to allow more efficient scheduling of classes and rooms.

13) **Access/Completion**: Offer online training courses, face-to-face workshops, and reference material for NKU provided software (Zoom, AEM, One Drive, etc.).

14) **Access/Completion**: Continue implementation of the Personalize and Mobilize initiative to enhance mobile access to NKU resources.

15) **Access/Completion**: Continue to participate in strategic discussions and performing implementation of administrative system improvements for faculty/staff.

16) **Access/Completion**: Continue to explore cloud computing options that would improve services to customers, while weighing the feasibility, security, and compatibility with existing systems.
17) **Access/Completion:** Expand our portfolio of security tools to continually improve our ability to monitor, remediate, and protect systems from malicious activities.
   - Cleanse, expand, and improve MS SCCM and JAMF (centralized computer hardware and software management) tools for better, more accurate and reliable reporting and functionality to account for 75% or better of the active managed assets accounted and managed.
   - SCCM and JAMF expanded use to manage undesirable or disallowed software for managed end points (Ex. Unlicensed/illegal use of MalwareBytes).

18) **Access/Completion:** Migrate dorm authentication service from NetReg to a newer more robust service TBD.

19) **Access/Completion:** Upgrade 80% of our classrooms with technology that supports hybrid instruction, and upgrade at least 20 classrooms to current AV technology.

20) **Access/Completion:** Enable the use of G Suite collaboration tools for students and faculty to increase collaboration and K-12 engagement.

21) **Access/Completion/Career & Community Engagement:** Support NKU's goal of expanded offerings of online courses and expanded online enrollments by facilitating and implementing equipment and services that enable access and completion of degrees.

22) **Access/Completion/Career & Community Engagement:** Engage in a formal Reporting & Analytics strategy project to better position NKU for future reporting and more importantly analytics needs.

23) **Access/Completion/Career & Community Engagement:** Provide resources for strategic initiatives that other areas are pursuing which are in support of access, completion, and/or career & community engagement; and continue to provide a stable and reliable technology foundation for new or ongoing strategic initiatives.

24) **Access/Completion/Career & Community Engagement:** Implement an internal project prioritization process that includes intake, RoI, resource allocation, etc.

25) **Access/Completion/Career & Community Engagement:** Promote staff development and leverage employee strengths in support of access, completion, and career/community engagement.

26) **Access/Completion/Career & Community Engagement:** Implement policy creation/update processes that provide a secure framework, address compliance requirements, and formalize roles and responsibilities for all faculty/staff/students and other constituents who interact with NKU.

27) **Access/Completion/Career & Community Engagement:** Improve NKU’s ADA accessibility by implementing and leveraging technological solutions and enforcing policy that supports legal requirements (Blackboard Ally, Closed Captioning, LMS review, etc.). Implement a change in the timing of the ITAC software request process to allow time for VPAT review and testing where needed for accessibility.

28) **Access/Completion/Career & Community Engagement:** Collaborate with Facilities Mgt to support new and renovation construction projects (Campus Master Plan, Classroom Upgrades, etc.).

29) **Access/Completion/Career & Community Engagement:** Address deferred maintenance requirements by replacing aging technology infrastructure. Refresh data center network, server compute and building network hardware as funding allows.
30) **Access/Completion/Career & Community Engagement**: Improve technology event support by providing new and updated equipment/software that is required to deliver quality services.

31) **Completion**: Continue implementation of a 5-year computer replacement cycle for faculty, staff, and computer lab devices while also focusing on inventory reduction and reallocation of viable devices.
   - Use available funding to purchase laptops and replace as many of the desktops/laptops as possible to complete the 5-year cycle. The desktops will be used for labs as needed.

32) **Completion**: Continually improve customer service by listening to customers and adjusting delivery methods & implementing innovative solutions to meet the needs of our broad constituency base.

33) **Completion**: Continue to expand our disaster recovery solution that addresses critical system and communication requirements.

34) **Completion**: Upgrade/replacement of analog security cameras to a digital platform that is centrally controllable for security purposes. Upgrade cameras at Grant County and add additional cameras as funding allows.

35) **Completion/Career & Community Engagement**: Provide real-world employment opportunities to students, enhancing their educational experience and assisting with career readiness (Interalliance, etc.).
   - Continue working with area High Schools, the INTERalliance program, and develop new partnerships to provide real-world summer employment opportunities to students, enhancing their educational experience and assisting with career readiness.

36) **Completion/Career & Community Engagement**: Develop and launch a competitive and E-Sports program in conjunction with Honors College.

37) **Completion/Career & Community Engagement**: Increase flexibility to community and student demands by employing Agile and DevOps practices in conjunction with containerization and microservices architecture.