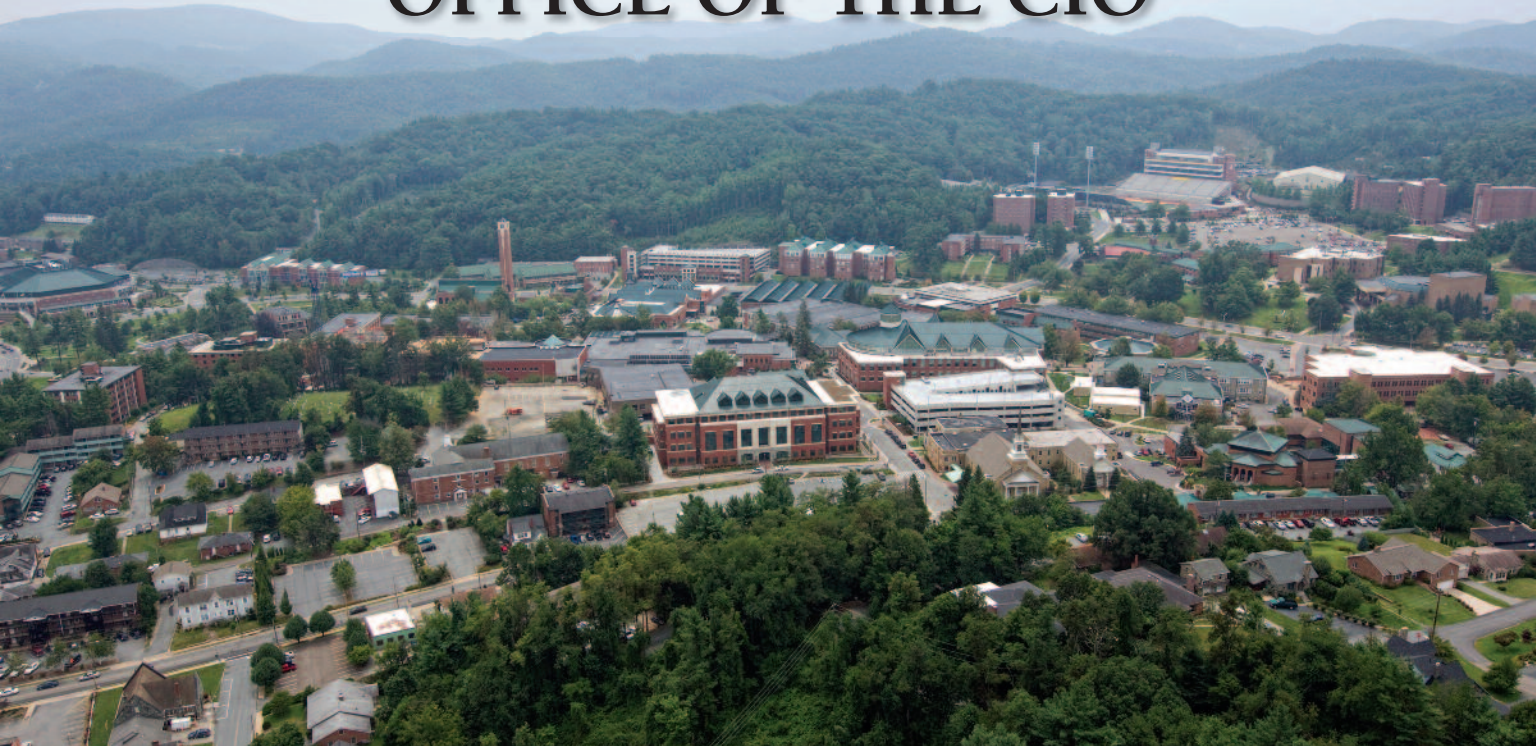


OFFICE OF THE CIO



ANNUAL REPORT

FISCAL YEAR 2014 - 2015

Appalachian
STATE UNIVERSITY



OFFICE OF THE CIO

LETTER FROM THE CIO



Cathy Bates
Chief Information Officer
and
Associate Vice Chancellor

cio.appstate.edu

As I reflect back over the past year, I am amazed at how much has transpired and how well we are positioned as we move forward. I am pleased to share the 2014-2015 CIO Annual Report, which provides an overview of this past year's achievements and our goals going forward.

Major projects this year included moving to a new Remote Data Center, the development and approval of a new Security Policy, moving our faculty, staff and students to a single email and calendaring system, workflow enhancements, the deployment of a Mobile App, the implementation of AppSync, a complete re-design of Digital Measures, a well-attended and successful Technology Fair, the development of an Analytics program, and more Research support for the campus.

The Remote Data Center project and our Going Google projects carried campus-wide impacts. For the data center, we needed to carefully stage the work to avoid downtime for end of semester academic services and end of calendar year critical administrative operations. During our Going Google project we utilized a phased approach, communications plan and diverse training plans. These serve as examples of how we need to work with the campus to minimize disruption and maximize service as we implement new technology.

Our IT Governance Technology Portfolio committees matured over the past year as well. The breadth of participation includes technologists from all over the campus who help to support the services as well as faculty, staff and students who use the services and/or are responsible for the service. We continually seek to strengthen our offerings to the university community to support the teaching, learning and research mission of the university. Our accomplishments are made possible by working with our IT Governance committees who helped set priorities and provide input on projects to make our IT initiatives the best solutions for the campus.

All of this happened in addition to the extraordinary amount of work put forth by everyone working in technology across the campus on a daily basis to improve services; implement new tools; expand features and functions; keep the systems running; solve problems; help students, faculty, and staff; and generally keep up with the ever growing demand for technology. I am sure that the upcoming year will present us all with new opportunities to continue to work together. It will be an exciting year.

Best,
Cathy

APP STATE GOES GOOGLE



KEY DATES FOR GOING GOOGLE

April 27, 2015 Eighty-five technical staff members migrated to MountaineerApps first.

May 25, 2015 Over 500 Early Adopters ranging from individuals to whole departments went live.

June 15, 2015 Go Live Day for MountaineerApps! 5500 faculty and staff were migrated.

June 22, 2015 Go Live Day for 750 retirees.

August 5, 2015 Almost 33,000 student accounts were moved from @email.appstate.edu to the @appstate.edu domain. This includes students who have graduated or taken classes in the past year.

Fall 2015 All Faculty, Staff and Student accounts are together at MountaineerApps hosted by Google!

gogoogle.appstate.edu

MOUNTAINEERAPPS SECURITY

ITS worked on many levels to provide new processes, security tools, training sessions, and education material to help safeguard institutional data that has been migrated to Mountaineer Apps.

gogoogle.appstate.edu/security



**MOUNTAINEER APPS
POWERED BY GOOGLE
APPS FOR EDUCATION**

MountaineerApps is Appalachian State University's brand for Google Apps for Education. This includes Gmail, Calendar, Drive, Hangouts, Sites and Google+.

TRAINING AND SUPPORT

There were 20 Mountaineer App Webinars and 36 workshops in preparing the campus for Going Google!

The Help Desk saw a 52% increase in the number of calls during the last week of June, compared to the same period last year.

GOOGLE MIGRATION

Nearly 40,000 accounts and 2.1 million email messages were migrated.

Faculty/Staff have stored 614,000 files in Google Drive

We have 11.5 terabytes of information stored on our Google domain.

GOOGLE HEROS AND MASTERS

Our teams came together to develop the Google support and training plan for the transition of faculty and staff email and calendaring. Nearly 200 Appstate "Google Masters and Heroes" worked to make the transition to Google a smooth one.

TEACHING AND LEARNING

RESEARCH IT SERVICES

The Academic and Research Technology Portfolio Committee, in conjunction with the University Research Council, has formed the IT Research Platform Subcommittee.

ITS launched the Cisco Graduate Assistant program this year. Through a generous gift from Cisco Systems, Inc., this program supports the competitive selection of two graduate students with strong

IT skills who provide IT support to faculty researchers. its.appstate.edu/research



To assist researchers addressing federal agency data management plan requirements, a working group, comprised of personnel from the Office of Research, Belk Library and ITS, began an effort to implement the DMPTool at Appalachian.

This working group is developing templates and sample text for the most popular grants. The DMPTool, once implemented, will integrate with our single sign-on Shibboleth infrastructure.



TECHNOLOGY FAIR

In collaboration with the Belk Library and Information Commons, ITS developed a multipurpose pedagogical and technology website for instructors on campus.

The website tech4teach.appstate.edu is an ever-evolving and user driven resource to support the effective integration of technologies and other resources into course design and facilitation to support a broad range student learning opportunities.

Belk Library and ITS worked together to facilitate the inaugural Tech4Teach Fair named Enhancing Student Engagement and Learning, held in Belk Library and Information Commons.

Over 80 faculty, staff and students attended as 29 presenters shared via E-posters their efforts integrating technology into their courses. Feedback from both presenters and attendees was extremely positive. It is intended that this will be an annual event.

tech4teach.appstate.edu



ASULEARN USE CONTINUES TO INCREASE

AsUlearn delivered over 61 million page views last year, an increase of almost 17%. The number of sessions increased nearly 13%. On average, people are spending 6% more time in AsUlearn and are using mobile devices for roughly 11% of the content. On an average day, throughout the year, there were nearly 19,000 logins (with over 45,000 per day during peak times).

TEACHING AND LEARNING



ANNE BELK RENOVATIONS INCLUDED SMART CLASSROOMS

Anne Belk Hall underwent major renovations during the summer of 2014. Twenty-eight new Digital Smart Classrooms were installed with an additional twelve classrooms installed during the winter break.

The new Digital podium equipment allows all content to be displayed in a 16:10 format at a 720p resolution.

GEAR UP

Appalachian received two GEAR UP grants totaling nearly \$30 million from the U.S. Department of Education to help low-income students prepare to enter and succeed in post-secondary education. In support of GEAR UP, the ITS Research Platform implemented and continues to make numerous enhancements to the Trackr software to support new functionality and address GEAR UP's reporting needs.

COURSE EVALUATION SOFTWARE PILOT

Responding to the requests for a campus supported Course Evaluation software, the Academic Services Portfolio committee is overseeing a pilot for the Fall 2015 semester:

- Distance education courses can be evaluated in a uniform manner
- Faculty will have the ability to customize course evaluation questions by course
- Real-time turn around access to course evaluation data
- Course evaluation data can be presented in easily understandable reports and graphics

A^{PORTFOLIO}

COLLECT. REFLECT. CONNECT.

A pilot program for an e-Portfolio system began in Fall 2014 completes its first year. Digication (branded APortfolio) is an e-Portfolio provider giving students an on-line archive of their academic work.

Over 1,300 students were given access to APortfolio during the 2014-2015 school year. This included students enrolled in 27 Fall 2014 courses and 43 Spring 2015 courses.

More than 100 courses with more than 2,000 students are expected to participate in Fall 2015.



Over 820 faculty and staff viewed more than 556 Hours of Lynda.com video during the past year.

CLASSROOM TECH TEAM

The Classroom Tech Team responded to over 1550 incidents last year. Of those requests, 784 came from the Intercom located on the podium in the classroom.

TEACHING AND LEARNING

CRIMINAL BACKGROUND CHECKS FOR TEACHERS

The College of Education requested that the Teacher Education Program application be moved into Banner Self-Service to help with Criminal Background Checks for teachers. Since this was done in November, 2014, there have been over 2,000 criminal background checks.



Portfolio committee is shepherding the pilot of Turnitin during Fall Semester 2015. Turnitin (Turn It In) is a suite of Internet tools that offer several academically useful services for evaluation of writing assignments, including originality reports, simplified/systematic grading of papers, peer-review of writing, and on- and off-line access to student-submitted, written work.

Faculty or students can submit writing assignments to Turnitin for checking once a faculty member makes Turnitin available through their AsULearn course.



There were over 2,000 Panopto recordings this year with over 2,300 hours of videos viewed.



TECHNOLOGY OFFERINGS EXPANDED IN BELK LIBRARY AND INFORMATION COMMONS

Belk Library and Information Commons continues to expand its technology offerings for staff and faculty. An audio recording room has been opened on the Lower level, and the Digital Media Studio has found a new place on this floor as well, making the Lower Level of the Library a hub for technology borrowing and multimedia production on campus.

The Tech Checkout Desk continues to offer 3D printing, large format printing, and a wide range of devices for checkout, including Oculus Rift virtual reality headsets, Raspberry PI minicomputers, and Arduino circuit boards, as well as the usual large assortment of laptops and tablets of all varieties. Faculty are also able to check out iClickers, projectors, and sound systems from this desk as well.

VIDEO CONTENT MANAGEMENT ADDED TO PANOPTO!

We have great news to share with our campus. Our classroom capture vendor – Panopto – has offered Appstate the use of their Video Content Management product free as part of our annual service agreement! Unison is a new media management system built on the same Panopto platform as Panopto Focus. Panopto Unison brings the Panopto platform's great features – search, editing, desktop and mobile viewing, analytics, and more – to any video created with any camera. You can upload existing video archives, cell phone video, and just about any media you can play on your computer. Panopto can be used with AsULearn to post recordings to AsULearn courses. Look for workshops and training on Unison this fall!

workshops.appstate.edu

STUDENT SERVICES



STUDENT DEVELOPMENT WEBSITES

During the 2013-2014 fiscal year, Electronic Student Services developed two responsive/mobile friendly templates for use on Student Development websites and web applications. This year, as these responsive designs were implemented, ESS staff worked with department staff and program coordinators to improve their website's content and information architecture.

At this time all Student Development websites have undergone this review and restructuring and all sites are mobile friendly.

studentdev.appstate.edu

APPALACHIAN MOBILE APP

The Web and Mobile Technology Portfolio Committee launched our first comprehensive Appalachian mobile app in Fall 2014. This mobile app provides many features including:



- Contact information
- Student grades
- Course schedules
- Directory search
- Campus map
- AsULearn
- The Library
- GOASU

REPEAT COURSE PROCESSING

ITS and the Registrar's office worked together in the Fall 2014 semester to improve the efficiency of the processing time for repeat courses. These updates reduced the processing time from several days of highly manual work to less than a day's effort.

WIRELESS ACCESS POINTS DOUBLED IN RESIDENCE HALLS

Wireless infrastructure upgrades were completed for the Residence halls during the summer of 2015. The number of wireless access points were doubled from 900 to 1800. This will give our on-campus students greater wireless networking capacity.

On the average weekday, there is an average of 13,000 devices on our wireless system.



APPALACHIAN MOBILE APP

To download, go to the Apple App Store or the Google Play store and search for Appstate.

STUDENT SERVICES

IT SUPPORT CENTER

Over 4,700 computers were checked into our Support Center during the past year.

78% of the computers brought in were from students.

HELP DESK

The Help Desk answered over 17,000 calls and 5,000 email questions from faculty, staff, students, applicants, incoming students, parents, alumni and retirees!

SAVING PAPER INITIATIVES

We saw a 3% decrease in paper-use last year with copiers and printers. Current efforts to decrease paper include: having duplex as the default for printing black and white, increased use of Fortis Image Scanning, more departments using Banner workflow, and upcoming plans for using a Google connector to scan documents directly into Google Drive. We still need the campus's help! Do everything you can to reduce using paper!

ONLINE SCHOLARSHIP PROCESSING EXPANDED

Freshman Scholarships continued to flourish this year. There were 4,039 admissions applicants who were eligible for scholarships, 2,236 of whom completed the scholarship application. 290 different applicants were invited to campus on Scholar's Day.

The online scholarship process was expanded this year to add continuing scholarships, with the College of Education being the first group to participate. There were 93 applicants with 23 advancing to the interview round.

IMPROVEMENTS FOR ADVISORS

As part of the launch of the new General Education requirements, ITS updated the student and advisor General Education theme selection pages. Advisors can now see an overview of students' completed coursework as it could apply to either Gen Ed 1 and Gen Ed 2 for those students who may change catalog terms to select the newer programs.



In a joint effort between Electronic Student Services, the Student Development Central Office, and the Center for Student Involvement and Leadership, OrgSync (branded AppSync) was successfully implemented for Appalachian's student clubs and organizations this year. The initial pilot of AppSync in the Center for Student Involvement and Leadership proved to be very successful and quickly led to plans for broader implementation throughout Student Development, University Housing and Orientation.

AppSync has proven to be a highly effective tool for enhancing student engagement, promoting events and programs, aiding assessment efforts and tracking student involvement. This year alone, AppSync tracked 90,514 hours of co-curricular student involvement within 440 active portals. The use of card-swipes to record program and event attendance has allowed for more targeted communication with students and improved program assessment through the use of triggered, program specific follow-up surveys. Gmail calendar integration allows students to easily import events and programs of interest to their personal calendar.

FACULTY AND STAFF SERVICES



DIGITAL MEASURES RESPONSIVE RE-DESIGN

Digital Measures is a faculty assessment tool that records research, publication, and service activity. An improved user interface was completed in the Spring 2015 semester after working with a series of focus groups with various academic departments.

The update includes new features for faculty users and more streamlined screen options. Effort is now being directed at meeting various faculty and department reporting needs on campus, including accreditation reports, a standard university vitae, customized department/college vitae and automated forms for grant applications. There are also plans to offer workshops and new online support for faculty users.

INFORMATION ANALYTICS

The Analytics team this year was primarily focused in two areas; installation of our new Analytics environment, and data validation. Implementation goals include:

1. Blackboard Analytics student data warehouse, with Banner student data, including registration, admission, financial aid, student billing, and student completions,
2. Pyramid graphical user interface for analytics
3. Governance model for student data
4. Training program for student data analytics program users, including IRAP, Enrollment Management, the Advisory community, Associate Deans, and Academic departments, to support effective use of analytics.

APPALACHIAN STATE UNIVERSITY USES REPORTS!

WebFocus has 44 dashboards that are used regularly with a total of 2,043 unique reports that have been run over the last year 111,429 times.

DESKTOP SUPPORT

The Desktop Support Group closed 5,571 support request via our Tech Excel incident management system.

IT SUPPORT CONSOLIDATED IN ANNE BELK HALL

During the Fall 2014 semester, the Help Desk, several IT Consultants, and Test Scoring moved to Anne Belk Hall. Renovations doubled the space for our Technology Support Center. More work space allows our teams to work more collaboratively and efficiently for our campus.

FACULTY AND STAFF SERVICES

TEST SCORING

ITS Scanned 4,373 tests during the 2014-2015 academic year.

DID YOU KNOW?

The Annual Educause ECAR Survey results consistently show that IT Support Services are rated in the top tiers for satisfaction!

MORE DEPARTMENTS USING FORTIS IMAGE SCANNING

In the Annual Report last year, 25 departments and colleges were taking advantage of Fortis Image Scanning to streamline processes and save paper. In this year alone, ten more have joined!

- Student Employment
- Student Accounts
- UC Advisors
- College of Business
- College of Fine and Applied Arts
- College of Health Sciences
- College of Arts and Sciences
 - Academic Affairs
 - Institutional Research
 - College of Education

Fortis has a total of 26 databases with over 650,516 documents stored.

BANNER WORKFLOW

Banner Workflow is used to improve business processes and automate paper processes. It helps institutions run more efficiently and consistently, providing better customer service to students, faculty and staff. There are four campus processes currently being developed:

The Overloads module was selected for initial development as it involves only the Academic Deans or their representatives for testing and training. This process will automatically update registration hours for those students who meet GPA requirements, and only requires college intervention for students needing review.

Special Course Forms was a request from many of the colleges. This new process will save the colleges many forms. For example in the case of Arts & Sciences alone it will eliminate nearly 400 triplicate forms per term.

Audit Requests – Students who wish to audit a course will be able to make this request through Banner Self-Service, which will electronically notify the instructor to approve or deny the request. This process will also handle any additional approvals which may be needed from the Dean's Office, Graduate School, or OIED.

Fund Authority – The Fund Authority Workflow will allow individuals to create a request to be routed through the appropriate channels to gain approval for a new fund or modification to an existing fund. This workflow will allow the requester to track the progress of the request and result in a quicker approval time.

BUSINESS SYSTEMS PROJECTS

The ASU jobs site was upgraded to the new PeopleAdmin system. The site is now more streamlined and sustainable with added workflow approvals established for EPA Nonfaculty and Temp employees.

The datamart reporting system was enhanced with more efficient and effective reporting. Reports were created for the Affordable Health Care Act to allow tracking and maintenance of Health Benefits

The Finance Campus Budget dashboard had increased usage. These reports allow campus administrators to make more efficient and timely budget decisions.

SECURITY AND INFRASTRUCTURE

MOVE TO NEW REMOTE DATA CENTER A HUGE SUCCESS!



Over the winter break, ITS completed the final steps in moving the Anne Belk Data Center to a newly constructed off-campus facility. This move was a major undertaking and was planned to create a phased approach, so the campus would experience as little disruption as possible.

ITS worked with many areas of the University to fully understand Appalachian's commitments during all phases of the move. As part of the upgrade, new Cisco Unified Computing System server equipment was installed in the Remote Data Center. This new data center has more than doubled our data center capacity and will provide us with the necessary infrastructure to support Appalachian's needs well into the future.

UNIVERSITY INFORMATION SECURITY POLICY

The ITS Office of Information Security led the development of a comprehensive University Information Security Policy. This policy was developed through engagement and consultation with the Information Security Advisory Council, Faculty Senate, Staff Senate, Student Government Association, and numerous leadership and campus technology teams.

security.appstate.edu

NEW SECURE FILE EXCHANGE SERVICE

ITS has deployed a new data protection tool called Filelocker. Filelocker is a secure web based file sharing application that facilitates easy file sharing between users while promoting secure data sharing habits. Filelocker allows for the encryption and sharing of files both inside and outside Appalachian State University.

filelocker.appstate.edu

INCIDENT RESPONSE MANAGEMENT

ITS has led the design and implementation of new incident response measures to address cyber attacks made against ASU. These measures have involved the establishment and formalization of a campus Executive Security Review Team and Computer Security Incident Response team. These teams work together to ensure that incidents are evaluated, reported, and treated in a consistent manner.

DATA MANAGEMENT STANDARD

ITS has been working to develop an enterprise level data management standard that establishes university-wide data management roles and data security classification system.

CYBERCRIMINALS

Cybercriminals release over 12 Million new malicious software variants on a monthly basis.

VOICE OVER IP PILOT COMPLETE

Partnering with NC State, ITS has conducted a pilot of Voice Over Internet Protocol (VOIP) for the last eight months. This pilot has gone extremely well and has prompted a commitment with NC State to expand this pilot for the campus in the coming months

LOOKING FORWARD

MOUNTAINEER APPS POWERED BY GOOGLE APPS FOR EDUCATION

Google Apps for Education offers more than email and calendaring. In addition to helping the campus get more out of Drive, Docs and Sites, we will explore other components for education and administrative uses with Google Apps for Education.

IT GOVERNANCE

This year begins the third year of our Governance model. We look forward to the continued development of our technology governance committees. Plans include roadmaps, managing portfolios to resources, a network and computing masterplan, and plans for a campus-wide IT strategic plan.

AND....

Continued Support for the many projects that made great progress during the past year, including Digital Measures, Faculty Workload, APortfolio Pilot, Tech4Teaching collaboration with Belk Library, Lynda.com, etc.

EXPANDING BANNER WORKFLOW AND FORTIS IMAGING

The Workflow projects this year have been very well received and more departments are adopting the use of Fortis Image Scanning. The Administrative Services Technology Portfolio Committee will be looking at a prioritization process to get more of the campus involved in these exciting time and paper saving initiatives.

RESEARCH

Technology research services for the faculty include creating processes and prioritization for graduate assistant services, high performance computing clusters and virtual servers, and the development of data management plan templates.

UNIVERSITY IT SECURITY PLANS

ITS is working to mature and unify campus information security processes in several important areas including IT Risk Management, Data Management, Security Awareness, and Disaster Recovery. This work is being done in collaboration with many campus units and stakeholders.

PHASE II OF VOICE OVER IP

The pilot phase of Voice over IP is now complete. There are plans for a phased approach to bring the campus on board beginning in Spring 2016 semester!

UNIVERSITY ANALYTICS

The upcoming year will be a big one for analytics. The roll-out to academic super users is planned for September 30, 2015. General campus roll-out will follow in Spring 2016!



OFFICE OF THE CIO

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