A

- **Account Assignments** — All Students, Faculty and Staff at Appalachian are assigned a Username and Email account. The Username is created using Last Name followed by the First and Middle initial. A duplicate name requires that a numerical digit be added to the Username. Student Usernames, in some instances, may be structured using the students' initials and five numerical digits. The Appalachian Email account is the Username with the extension @appstate.edu. This account is used for all official University communication by Students, Faculty and Staff for both instructional and administrative purposes. The Appalachian University ID number is also known as the Banner ID. This is a nine digit number unique to each individual on campus. This number is sent to the home department of faculty and staff and to students by the office of Admissions when they are accepted as prospective students.

- **Acrobat Pro** — The Acrobat Pro software package has been included in the Adobe Creative Cloud software package. For more information on installing Creative Cloud, please visit our Adobe Creative Cloud support page. Assistance: For questions regarding use, call the Help Desk at 828-262-6266.

- **Active Directory (APPD)** — This authentication allows for electronic access to several services including: Local desktop access, ASU Secure Wireless, TechExcel, ASU VPN, APC Racks, ADM Pro, APP VDI, UStor, Login Public Workstation Logins, etc.

- **Adobe Creative Cloud** — Adobe Creative Cloud is a software suite for graphic design, video editing, and web development applications. All faculty and staff are provisioned for an Adobe Creative Cloud license, which includes Adobe Products such as Photoshop, InDesign, Illustrator, Acrobat Pro, and several others. (For a full list of programs included in our Creative Cloud license, please view the Creative Cloud for Enterprise product listing here.)

- **Advancement Campus Call (Ruffalo Cody)** — CampusCALL is used for the phonathon fundraising efforts of the Appalachian Fund and other areas within University Advancement. The App Fund's CampusCALL application website is protected by the server's firewall. Only PC's that have explicit firewall exemptions have access.

- **Advisor Trac** — Redrock Software developed AdvisorTrac to meet the needs of advising and counseling centers for higher education. Functionality includes online appointment scheduling, allowing advisors and counselors the ability to post their schedules for students to access. AdvisorTrac also houses a reporting and student information interface that is populated from internal student activity records (system log-ins) and from Banner data (student information).

- **Advisor Solutions** — Advisor Solutions is used for prospect management and supports the fundraising efforts of University Advancement.

- **AGrants** — AGrants (also called RAMSeS, the name under which it was developed at UNC Chapel Hill) is the electronic system by which all proposals on campus will be routed for required internal approvals. AGrants is the official campus repository for all documents related to sponsored activities at Appalachian, both those that are submitted and those that are awarded. Sponsored Programs and Special Funds Accounting maintain the documents in AGrants after a proposal has been funded.

- **AiM (Intelligence Within Asset Management)** — AiM is a Facilities Management solution for government and educational facilities. It is used by Appalachian to submit Physical Plant work requests for building maintenance and repair requests for vehicles. The link to the AiM Access Form is: http://physicalplant.appstate.edu/sites/physicalplant.appstate.edu/files/FMaxAccessForm20110525.pdf

- **AIMS** — AIMS is our parking management system that is accessible through Banner Self Service. Through this system students, faculty and staff can register their vehicles, purchase and manage parking permits, and appeal citations. Parking & Traffic office personnel can manage parking lots, lot eligibility, communicate with the hand-held units, and manage appeals.

- **Announce** — All faculty and staff are members of this moderated Announce group designed to share campus news and events like lectures, general announcements for faculty and staff, professional development workshops, special events, retirement announcements and more. A digest of messages will be sent each weekday the university is in operation. The primary goal of this site is to give members of the campus...
community more control over the campus-wide email they each receive. This site gives users options in how they receive the information sent to
that campus that is important to them, and also allows them to easily opt out of email lists that they would rather not receive. Messages also will be
available for viewing from the Announce site. Detailed instructions for using the site are located at https://announce.appstate.edu/faq.

- **Antivirus Software** — Standard operating system images that are configured by ITS for faculty and staff computer systems include an antivirus
solution. Windows 7 images include System Center 2012 Endpoint Protection, MacOS images include ClamX antivirus. Students are encouraged to
use Microsoft Security Essentials on personal computers.

- **APortfolio** — APortfolio is Appalachian State University’s ePortfolio. It is an academic website where students collect and reflect learning. The
ultimate goal of the students’ APortfolio is to intentionally document learning and to design a positive digital presence for a professional audience. At Appalachian State University our students and faculty use APortfolios for multiple purposes to make learning transparent in the context of a
class, program, research projects, international experiences or career preparation. The APortfolio system also offers options for holistic
assessment of student work.

- **AppNet** — AppNet is Appalachian’s AppalNet Portal is the one-stop source for information and resources from the Appalachian State community.
Students have direct access to all aspects of their accounts. Grades, registration information, targeted announcements, financial aid and account
information, and resources are all available to the student through the single portal. These resources allow students to personalize and manage their access to
services across a broad spectrum including class registration, grades, degree audit management, billing and payments, parking, campus housing and
other student activities. Faculty and staff have access to a broad range of resources including account management, parking, and employee
information.

- **AppCard** — Appcard Online provides the ability to make deposits and view transactions and balances to personal AppCard accounts. The card
holder can set up low balance warnings to notify them when any account balance reaches the set amount. The card holder can deactivate his/her
lost card and reactivate, if lost card is found. Information concerning available accounts and a FAQ section are available on the website.

- **AppSync** — AppSync is a one-stop connection to engagement and leadership opportunities at Appalachian State. Every member of our campus
has access to AppSync and can explore over 450 clubs and organizations, departments, events and programs on campus.

- **APPWORX** — APPWORX is Appalachian State University’s Enterprise Job Scheduler. It is used primarily in conjunction with the Banner ERP
system for automation of functional area processes and for refreshing of the Banner Data Warehouse. APPWORX is maintained and accessed
solely by members of the University Enterprise Applications Group. Requests for job entries into APPWORX are placed by University Banner
Functional area leads.

- **ArcGIS** — ArcGIS is a geographic information system for working with maps and geographic information to create and use maps, compile
geographic data, analyze mapped information, share and discover geographic information, and managing geographic information in a database.

- **Audacity** — Audacity is an open source software application used for recording, editing, and post-processing all types of audio.

- **AutoCAD** — AutoCAD is a software application used for Computer-Aided Design (CAD) and drafting in 2D and 3D formats. AutoCAD Software:
AutoCAD Architecture AutoCAD Civil 3D AutoCAD Electrical AutoCAD Map 3D AutoCAD Mechanical AutoCAD MEP AutoCAD Plant 3D
AutoCAD Raster Design AutoCAD Structural Detailing AutoCAD Utility Design AutoCAD Alias Design AutoCAD Infrastructure Modeler Autodesk

- **ASP Invoice Automation** —

- **Assistive Technology Room** — The Assistive Technology Room is located in Room 141 (across from the reference desk) of Belk Library and
Information Commons. The Assistive Technologies Room houses technologies to facilitate academic success and provide alternate format
access to library materials for users with a variety of vision, hearing, learning, and/or mobility related disabilities. Equipment Available: JAWS For
Windows - The most popular screen reader worldwide, JAWS for Windows works with your PC to provide access to today’s software applications
and the Internet. With its internal software speech synthesizer and the computer’s sound card, information from the screen is read aloud,
providing technology to access a wide variety of information, education and job related applications. Zoomtext Xtra - The most advanced fully-
integrated screen magnifier paired with a screen reader – designed specifically for the computer user with low vision. 2x-16x screen magnification
possible. Kurzweil 3000 - Kurzweil 3000 is the comprehensive reading, writing and learning software solution for any struggling reader, including
individuals with learning difficulties, such as dyslexia, attention deficit disorder or those who are English Language Learners. Dragon Naturally
Speaking - Voice-activated software that allows the user to dictate into almost any windows-based application quickly and accurately. Without
ever clicking your mouse, you can edit a document, control applications and manage your desktop – all through the sound of your voice. CCTV -
Closed Circuit Television (CCTV) or Video Magnifier is used for someone with low vision. The book, magazine, worksheet, etc. to be looked at
is placed under the camera, and then the material is magnified through the camera to be looked at on a screen. The CCTV can do a contrast of
black on white or white on black. Print Station - The Print station in the Assistive Technology Room is at a height appropriate for patrons in
wheelchairs.

- **ASU VPN** — ASU VPN is an installed, client based solution that creates a virtual private network or a secure connection/tunnel back to our
network allowing off campus users access to on campus only resources. When installed, the ASU VPN client also gives you the
capability to access your university computer from home. In order to use this system you are required to install the ASU VPN client, and
authenticate with your Appalachian State University username and password.

- **AsULearn** — AsULearn (Moodle) allows classroom interactions to extend onto the web. It allows faculty to post course information, hold class
discussions, create and accept assignments, and conduct exams online. AsULearn may be used to create a fully online course or to augment a
traditional face-to-face class. Place course materials online Create an online grade book Create online quizzes Upload and organize content
Allow students to submit assignments online Use the communication tools with AsULearn for discussions, chat or wikis Create web conferences
that allow you to meet with others over the internet

- **AsULearn Global** — AsULearn collaboration tools for Professional Development, training, and an online learning management system for people
who are not enrolled at the University

- **Athletic Ticket Sales** — Tickets for Athletic Events can be purchased online by going to http://www.goasu.com and choosing Tickets, or by calling
the Ticket Office at 828-262-2079.

- **AutoCAD** — AutoCAD is a software application used for Computer-Aided Design (CAD) and drafting in 2D and 3D formats. AutoCAD Software:
AutoCAD Architecture AutoCAD Civil 3D AutoCAD Electrical AutoCAD Map 3D AutoCAD Mechanical AutoCAD MEP AutoCAD Plant 3D
AutoCAD Raster Design AutoCAD Structural Detailing AutoCAD Utility Design AutoCAD Alias Design AutoCAD Infrastructure Modeler Autodesk
Autodesk Maya — Autodesk Maya is a 3D computer graphics software used to create interactive 3D applications including video games, animated film, TV series, and visual effects.

Banner 8 INB — Banner 8 Internet Native Banner is an enterprise application solution for higher education. The software provides solutions for all major components on the campus, including: Finance, University Advancement, Human Resources, Student Services, and Financial Aid. Banner Financial Aid Module allows Appalachian to: Award aid equitably to students, Disperse and monitor funds, Compile Federal regulatory updates easily and quickly, Provide self-service capabilities to students for viewing and accepting their awards. Banner Student Module is used by office staff for the management of student information, course creation/adjustment, student account maintenance, etc. Banner Advancement Module can engage, cultivate, and steward alumni, prospects, donors, and friends. Building the relationships that are critical to successful fundraising and development. Banner Finance Module provides support to plan, develop, and manage institutional budgets; manage and monitor endowments; manage and track sponsored research and associated grants; fulfill institutional and state mandated reporting requirements.

Banner 9 Administrative Pages — Banner 9 Administrative pages replaces Banner 8 INB with a more modern interface. The software provides solutions for all major components on the campus, including: Finance, University Advancement, Human Resources, Student Services, and Financial Aid. Banner Financial Aid Module allows Appalachian to: Award aid equitably to students, Disperse and monitor funds, Compile Federal regulatory updates easily and quickly, Provide self-service capabilities to students for viewing and accepting their awards. Banner Student Module is used by office staff for the management of student information, course creation/adjustment, student account maintenance, etc. Banner Advancement Module can engage, cultivate, and steward alumni, prospects, donors, and friends. Building the relationships that are critical to successful fundraising and development. Banner Finance Module provides support to plan, develop, and manage institutional budgets; manage and monitor endowments; manage and track sponsored research and associated grants; fulfill institutional and state mandated reporting requirements.

Banner 9 Finance Self Services — Banner 9 Finance Self-Service provides tools for viewing, filtering, and sharing data and includes a new graphic dashboard for managing departmental budgets.

Banner Self-Service — Banner Self-Service is defined by the role of the user; faculty, employee, or student. This role is assigned automatically. Banner Faculty Self Service provides faculty and advisors with the ability to view class lists, email students, grade courses, view advisee lists, view class photos, view student contact information, view student transfer articulation, and access other information about the courses and students they teach. Banner Employee Self Service allows employees of Appalachian to submit time sheets, view pay information, leave balances, tax forms and register for parking. Banner Student Self-Service allows students to view/update their addresses, courses, unofficial transcripts, holds, bills, make payments, view grades, register for parking, view schedules, and other student activities.

Benefit Focus — BenefitFocus is the system in which employees enroll in benefit elections and historical benefit data is stored.

Blog (Creating a Blog) — A Blog is made up of a number of individual time-stamped posts called blog entries and allows for registered users to create and maintain a sophisticated online journal. In order to create blog entries, the blog module must be enabled by an administrator. In addition, the create blog entries permission must be enabled by an administrator. Go to the website: http://help.cms.appstate.edu/book/blogs for instructions for creating a blog.

BoardEffect — BoardEffect is cloud based board management software used by the Board of Trustees.

Boardmaker — Boardmaker is a software package used for creating assistive tools for printed materials such as schedules, sequences, worksheets, and communication boards.

Bomgar — Bomgar is a remote support solution which allows technology support professionals to access and control systems and devices remotely, including personal computers, some smart phones, and some tablets.

AppState Careers — Currently Careers at AppState system is a repository for SPA position descriptions where updates and salary adjustments occur in an online environment. The system will be upgraded in the near future and will include, EPA Non-Faculty, Faculty, and temporary positions will be added to the system. Hiring managers, department heads, faculty, and search committee members will utilize the system to streamline recruiting and deliver a more effective selection process and evaluation process for Appalachian State University positions.

Cable Television Services — Cable Television Services are distributed to all University buildings via a distribution network of fiber optic and copper coaxial cable. Charter Cable provides the campus with a baseline offering of standard definition broadcast and cable channels. Appalachian Media service filters out several channels, and replaces them with public service and Appalachian specific programming before distributing the signal to the campus buildings. Signal quality and moves, adds and changes for the departmental and Residential areas are provided by ITS.

Camtasia — Camtasia is a software application used for creating video tutorials and presentations via screen video capture recording, post-production editing (including the addition of audio), and deployment with various video formats. Camtasia is available through the Software Center.

Central Warehouse Request Form — The Central Warehouse Request Form is a web application through which ASU Faculty and Staff can request supplies from the Central Warehouse and view past orders.

CFNC — College Foundation of North Carolina (CFNC) is a free service of the State of North Carolina that helps students plan, apply, and pay for college. CFNC is part of a state-wide initiative to increase the college-going rate of North Carolinians by providing: comprehensive college and career planning resources; electronic applications and transcripts accepted by all 110 North Carolina colleges and universities; and, information on student financial aid and college affordability. All undergraduate applications for admission to Appalachian State University are procured through CFNC.
• **Check-In** — The Counseling Center Check-In system allows to check into the counseling center, identify why they are visiting, and indicate if they are having an emergency. This system streamlines patient routing for the Counseling Center and provides visitation metrics.

• **Clean_Address** — 
  CLEAN_Address is a development component for easily verifying and standardizing Global addresses through Oracle database applications. Addresses can be verified Real-Time or Batch using a simple PL/SQL procedure call. This saves data entry time, protects against fraud, reduces costs of re-shipping, and allows duplicate address detection. Appalachian utilizes the pre-built interfaces for Banner.

• **Club Connect - The Student Development Record** — End point system for club management and involvement tracking which provides for on-demand generation of student co-curricular/involvement transcripts. Data snapshot taken from AppSync each semester on a census date.

• **Common Application** — The Common Application is an undergraduate college admission application that applicants may use to apply to Appalachian State University as an undergraduate first-year applicant. The Common Application allows the applicant to submit an application for admission, high school transcripts, resume, essays and references at the point of application submission.

• **Computer Labs (Public and Private)** — 
  Public and private campus computer labs provide students, faculty and staff with access to desktop computing programs and Internet access. See the Computer Labs page for lab locations, hours, and details.

• **Confidential Data Scanning and Cleanup** — 
  Identity Finder is an application that scans a computer, including removable drives and network drives, and reports all files that potentially contain credit card data, passport numbers, and Social Security Numbers. After the scan, Identity Finder gives options to remediate -- or clean up -- the reported files.

• **Consultant Services** — 
  This group consists of IT professionals who are called on to resolve a variety of IT problems for the faculty and staff of the university. ASU has developed a standard computing environment for faculty and staff PCs and Macs called the Appalachian Computing Environment (ACE) desktop installation, which is easily deployed and supported on individual machines. This standardization dramatically reduces the time required to have a user up and running when his or her machine has ceased functioning due to software problems, or when a new computer is installed. We use the Tech Excel integrated incident management system to record, track and resolve service requests. The workflow features provide an automated workflow mechanism to keep the customers and support staff apprised of the status. Each Campus Building/Area has a consultant assigned to that area for support. Complete list of IT Consultants. Services Provided by Consultants Include: Virus Removal Rebuild/reimage computers Troubleshoot/resolve/set up printer Back up data & show people how to do backups Java fixes Mobile device set ups and instruction General client services Software updates Software installation, set up, and instruction Data recovery Troubleshooting Softwaos network/wireless issues Set up and resolve common issues with email and calendars Maintain computers in classroom and research labs Make purchasing recommendations /provide quotes Website updating and training AsULearn support Maintain computer replacement cycle Special projects for college and departments Scala/Digital signage support Support streaming media Manage CSGold card access system Emergency building coordinator Make purchasing recommendations Coordinate surplus property movement After normal hours email responses Basic troubleshooting of classroom technology, Sharp Copiers, and computer labs.

• **Copier Fleet Services** — 
  Maintain campus-wide contracted Sharp Multifunctional Printers including: Hardware Support, Consumable Supplies, Recycling Program, Printing and Scanning Support, Installation, Accounting, Training Users, and Liaison with the Vendor.

• **CorVel** — 
  CorVel is a third party administrator for Worker's Compensation

• **Course/Faculty Evaluations** — 
  At the end of each semester faculty members have the opportunity to have their performance evaluated by the students. ITS Data Control provides scanning of the evaluations with results emailed to Departments as a Word document. Each department is responsible for purchasing /printing their Faculty Scantrons. Our office provides a list of questions that departments are required to use.

• **CoursEval** — Our campus adopted CoursEval as our university tool for online course evaluations in January 2017. If you are a faculty member or department chair who has participated in this project, you can view results from previous semesters at this link. Students click the same to access course evaluations, if any are available. Online evaluations are not required, but the option is available to interested departments.

• **CS Gold (Campus Dining)** — CS Gold is the software system that works with everything involving the campus cards. It controls multiple accounts on the card including meal accounts and express accounts for students, faculty, and staff. Card readers on campus are controlled by CS Gold. Copiers, Vending, Laundry, Access are all controlled by CS Gold.

• **Custom Web Application Development** — ESS has over a decade of experience creating Web 2.0 applications to address university needs

• **Cyber Attack - Incident Response** — OIS provides value to the University by detecting, coordinating, and managing the handling of cyber-security incidents. Types of services provided include: Attack Detection - We provide services to detect cyber-attacks against the University to identify potential security issues and address them responsibly. Incident Coordination - We oversee the coordination of cyber security incidents including their analysis and remediation. We also perform after-action review to capture information regarding attacks and evaluate defensive measures.

• **CyberDuck** — CyberDuck is an open source FTP and SFTP, WebDAV, Cloud Files, Google Docs, and Amazon S3 client.

• **Data Control** — Data control provides services that support various groups/departments on campus. Multiple responsibilities are completed within this group while working with end users and ITS support personnel. Data Control is located in Peacock Hall – Room 1110 – Ext. 2140. Data Control Services AppWorx – Define/Schedule/Submit/Monitor/Troubleshoot jobs for end users. Application Analysts and DBA group. Banner – Submit jobs either scheduled or on demand. Duplicate PIDM - When possible duplicate PIDM's are found, acquire information for ID's in question and forward to appropriate individuals for final decisions. e-Print – Define/monitor/troubleshoot jobs as needed. Create month-end/year-end data CD's for Finance and Alumni Offices. External File Download/Upload - Download/Upload Certifih/Blue Cross Blue Shield/Praxis & COB. Proficiency Credit files and process accordingly. Username Changes – Coordinate and Process Username changes 6 times a year. Docuware and Banner Security - Create and Modify Users and Classes.

• **Data Transfer** — Data Transfer (formally known as Nolij Transfer) is a third-party software application used for person matching and external file loading to Banner. Data Transfer is used by graduate and undergraduate admissions to load applicants and associated data into Banner. An automated procedure matches external records to existing Banner IDs and creates new Banner records for incoming data that has no possible...
match in Banner. Possible matches are reviewed manually in a graphical user interface that displays the components on the incoming data load that matched components in Banner.

- **DegreeWorks** — DegreeWorks is a comprehensive, easy-to-use, web-based academic advising and degree audit tool that helps students and their advisors successfully navigate curriculum requirements. DegreeWorks is integrated with Banner Student information to provide powerful academic planning tools and real-time counseling capabilities, giving students meaningful and consistent direction and providing advisors and student records managers with real-time curriculum information.

- **Digital Measures** — ActivityInsight is a faculty assessment application from Digital Measures. ActivityInsight manages critical information pertaining to faculty productivity, assessment and accreditation. Appalachian uses this tool to collect faculty activities including teaching, research, and service for annual reports and other purposes.

- **Digital Media Studio** — The Digital Media Studio is located in Room 355 of the Belk Library and Information Commons. It provides the tools and knowledge for our patrons’ video, audio, and design-related projects. From the novice to professional multimedia creators, we can accommodate your technical needs and answer your questions. The DMS is a learning lab. We’re here to guide you toward project completion, but you are ultimately responsible for the final product. The studio is open for use by all students, faculty, and staff of Appalachian State University. Equipment and Software Mac Pro’s and iMacs These machines are the engines of our multimedia design studio. All Macs are loaded with the software needed to realize your project from start to finish. We have (5) 27” iMacs with quad-core processors and Thunderbolt. We also have (10) Mac Pros with quad-core processors. All machines run Mac OS X Lion. Dell PCs Our (2) PCs run Microsoft Windows 7 and various software suites for your convenience. Slide Scanner We have a Nikon CoolScan V ED. Slide and negative scanner. It supports up to 4000 dpi resolution and is the perfect tool for digitizing your slides and negatives to use on the web, in Photoshop, or archiving purposes. Scanners Have a photograph that you need to scan? We have (2) HP ScanJet 8200s and a larger Microtek 11” x 17” scanner. Video Decks Our Video Decks or VTRs, allow users to digitize video footage shot on either VHS or MiniDV cameras. • One JVC srvm600 • Two br-dv3000’s Recording Booth & Microphones We have a new audio recording booth for professional voice-overs. The booth is acoustically treated for high-quality audio recording. It features a Rode NT2a condenser with variable pick-up pattern connected through a Presonus FireStudio Mobile Firewire Interface. In addition, we have seven Samson C01U USB condenser mics. Software Adobe Acrobat Professional Adobe After Effects Adobe Audition Adobe Illustrator Adobe InDesign Adobe Photoshop Adobe Premiere Pro Adobe Lightroom Adobe Flash Apple iLife Suite Apple iWork Camtasia iSkySoft Video Converter and more

- **Digital Signage - Scala** — The university adopted Scala for the supported digital signage solution for campus. ITS provides the back-end server support for the player management. Each campus entity (E.g. Library, Student Union, etc.) is responsible for purchasing the displays, and the content players. ITS will be happy to consult with areas to recommend hardware configurations and help with vendor quotes for products. Each area also identifies their own content creators for publishing information to the digital signs.

- **DMCA - Digital Millennium Copyright Act of 1998** — The Digital Millennium Copyright Act was signed into law in 1998 and affects anyone who creates content that is either available in digital form or can be transformed into digital work. This law also affects users by restricting what can and cannot be done with digital content. Appalachian State University has developed a three strike policy with DMCA takedown notices for our end users. A first offense is handled through a warning and response system where the student is notified and asked to remove all copyrighted material from their computer. A second offense is handled through a warning and mandatory workshop to educate on the risks of copyright infringement. Internet is cut off from the student’s computer for ten academic days. A third offense is handled by cutting off the student’s computer Internet access for 75 academic days, and placing the student on academic probation. For more information on the Digital Millennium Copyright Act: http://www.copyright.gov/legislation/dmca.pdf

- **Docuware** — Docuware is ASU’s enterprise electronic document management system. Its use by many departments across campus has resulted in a reduced need for printing and storage of large quantities of hard copy records.

- **Door Access for University Buildings** — Door Access is controlled through CS Gold (a software system used by Food Services that involves campus cards). Each controlled door has a reader, controller and electric strike mechanism. Set up and maintenance of the controller and reader equipment is done by Food Services. The electric strike (lock equipment) is set up and maintained by the Physical Plant Lock Shop. The Food Services access technicians and the Physical Plant technicians work together to trouble-shoot problems that arise with readers and door locks.

- **Dragon** — Dragon NaturallySpeaking/DragonDictate is a speech recognition software package that enables the user to dictate and have speech transcribed as written text. Documents can also be synthesized as an audio stream.

- **DUO - 2-Factor Authentication** — 2-Factor Authentication provides an additional layer of protection onto your account by introducing a time-based passcode generated by your phone or hardware token.
performed 24/7 availability of services. However, in the event of multiple system failures, services may be disrupted. In this event, every effort will be made to restore services as quickly as possible.

- **ePrint** — ePrint is our Banner report repository. ePrint is an Internet application to securely and quickly distribute reports across the institution as well as archiving these reports. It interacts with Banner to apply authentication and authorization to reports.

- **Escalated Support for Student Affairs** — Desktop technical support for the Division of Student Affairs. If you are in the Division of Student Affairs and require desktop support please send an email describing the problem to: esssdsupport@appstate.edu or submit a request via the web at: http://ess.appstate.edu/request-support

- **EverFi Training** — To continue to build upon efforts to prevent and respond to incidents of gender and sexual harassment and violence, Appalachian is implementing a required online training program, Bridges: Building a Supportive Community. This training initiative is the result of requests from faculty and staff for enhanced information regarding reporting student concerns via a self-paced training. This is the first installment of a multi-layered educational effort regarding topics of interpersonal violence to Title IX Responsible Employees. The training program is online, requiring access to internet. It is HIGHLY RECOMMENDED to use Google Chrome or Mozilla Firefox as the web browser for the training program.

- **eVerify** — e-Verify is the federal system in which all new hires of the university are run through to determine employment eligibility.

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**F**

- **Faculty Workload - Banner** — Faculty Workload is a component of the Banner system. The Banner faculty load process provides the capability to identify and define faculty and advisors to the Banner Student System. It also provides the capability to dynamically calculate workload and contract analysis based upon a set of user-defined control and rules forms as well as the capability to produce hardcopy output of the calculated results of the analysis performed through use of the module delivered reports. In addition, a number of review/query forms are provided to look-up the related record information entered into the module.

- **Fathom** — Fathom is a dynamic data software used for learning and teaching a variety of mathematical subjects including algebra, precalculus, and statistics, and their integration into the physical, biological, and social science courses.

- **FAX server (Financial Aid and Admissions)** — System for receiving faxed documents with a corresponding web application for viewing and organizing incoming faxes. Saves paper by capturing fax documents in PDF format. Staff can browse their faxes from their desktop.

- **Fetch** — Fetch is a GUI-based FTP client made for Mac OS.

- **FileLocker** — FileLocker is a web-based secure file sharing application that facilitates easy file sharing between users and promotes secure data sharing habits. FileLocker allows you to share files with other people both inside and outside of Appalachian State University. This is a web-based secure file sharing option using https encryption for confidential data.

- **Filemaker Pro** — Filemaker Pro is a database application that integrates a database engine with a GUI-based interface, allowing users to modify the database by dragging new elements into layouts, screens, or forms.

- **FileZilla** — FileZilla is a secure FTP/SFTP client that allows you to transfer files over the internet.

- **Financial Aid Check-In** — The Financial Aid Check-In system allows students to swipe their AppCard to check into the Financial Aid office and identify the purpose of their visit. The system streamlines student routing for Financial Aid and provides visitation metrics.

- **Firefox** — Mozilla Firefox is a web browser developed for Windows, OS X, Linux, and Android.

- **Firewalls/NAT** — This service provides two separate functions to ASU. It provides network security via network firewalls. We provide the Network Address Translation (NAT) in order to provide more IP addresses to the Resnet and Student VLANs.

- **Flip4Mac** — Flip4Mac is a digital media tool that includes the only QuickTime component for Mac OS X that also supports Windows Media Video.

- **FNIS** — All international employees enter data into FNIS to determine taxation status and tax treaty eligibility.

- **Food Services Invoice EDI** — The Food Services Invoice EDI System sends Food Services invoice information electronically from FSS to a staging table. The Accounting Office analyzes the information, balances it to information on a separate confirmation communication from Food Services, and processes the invoices electronically rather than by manual entry. Another step pulls the vendor invoice number and due date into a staging table. The Food Services Invoice EDI System sends Food Services invoice information electronically from FSS to a staging table. The Accounting Office analyzes the information, balances it to information on a separate confirmation communication from Food Services, and processes the invoices electronically rather than by manual entry. Another step pulls the vendor invoice number and due date into a staging table. Another step reports check numbers from Banner back to Food Services employees. For problems or issues, contact: https://systems.appstate.edu/

- **FormFusion** — FormFusion is our document enhancement and distribution solution integrated with our Banner system. The software converts standard output into more attractive, functional and efficient electronic documents which are distributed via email or print. It provides solutions for many documents on campus, including: Transcripts, Student Bills, Tax Forms, and Financial Aid letter generation.

- **Fugu** — Fugu is an SFTP client for OpenSSH tools.

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**G**

- **GarageBand** — GarageBand is a software application used as a digital audio workstation and music sequencer that can record and play back multiple tracks of audio. It’s most commonly used for podcasts and the creation of music.

- **Gaussian** — Gaussian is software used for computational chemistry.

- **GeoMapApp** — GeoMapApp is a marine geoscience data system that provides direct access to the Global Multi-Resolution Topography compilation that hosts high resolution bathymetry from multibeam data for ocean areas and Advanced Spaceborne Thermal Emission and Reflection Radiometer and National Elevation Dataset topography datasets for the global land masses.
• **Geometer’s Sketchpad** — The Geometer’s Sketchpad is an interactive geometry software program for learning and exploring Euclidean geometry, algebra, calculus, and other areas of mathematics. For assistance using this software, please contact the ASU Mathematics Department.

• **Gmail** — All Faculty, Staff and Students use Google Apps for Education for email as well as calendaring, docs and drive.

• **GOASU.com** — GOASU.com is Appalachian State's athletic site for the latest on Mountaineer news, events, game schedules, results, tickets and live streaming events. GOASU.com is a product of the Nuilion vendor, formerly JumpTV. Athletics utilizes the following from the Nuilion TITAN suite: Web streaming Website management Ticketing Donor management for the Yeasf Club

• **Google Chrome** — Google Chrome is a web browser developed by Google.

• **Google Classroom** — Google Classroom is a learning platform that works with Google Docs, Gmail and Google Calendar to create classes, distribute assignments, and send feedback to students added to a Google Classroom. Google Classroom is not a replacement for AsULearn and lacks many of AsULearn’s advanced features and there are currently no plans to programmatically integrate Classroom with institutional data such as class rosters. The only supported use of Google Classroom is as a teaching aid for educational curricula. Since many K-12 schools use Google Classroom, Reich College of Education faculty and students may wish to use Google Classroom as a part of their K-12 training. When using Google Classroom, a teacher will need to set up a class, and invite students and any co-teachers because Google Classroom is not pre-populated with Appalachian classes, assigned faculty and enrolled students.

• **Google Drive** — All Faculty, Staff and Students have access to Google Drive. Google Drive is a file storage and synchronization service developed by Google. Google Drive allows users to store files in the cloud, synchronize files across devices and share files.

• **Google Earth** — Google Earth is a virtual globe, map and geographical information program that uses satellite imagery, aerial photography and GIS 3D globe to superimpose images to map the Earth.

• **Google Groups** — Google Groups is a feature of Google Apps that makes it easy to communicate and collaborate with groups of people—such as project teams, departments, office locations, and special-interest groups. A group is like a mailing list: It contains the email addresses of its members, but also has its own address. Using just the one email address for the group, you can: send email to group members, invite group members to meetings, and share your content (e.g., Google documents, sites, videos, and calendars) with group members.

• **GSuite** — GSuite is a collection of productivity and collaboration tools developed by Google, including Gmail, Google Calendar, and Google Drive. More information about these services can be found at gsuite.appstate.edu

• **GuideBook** — Guidebook provides a platform for publishing mobile applications in the App Store and Google Play Store. Appalachian uses Guidebook to publish mobile apps for Career Development, the Office of Sustainability, Admissions, Walker College of Business, College of Arts and Sciences, the Graduate School, Orientation, Arts and Cultural Affairs, University Communications, and Parent Orientation.

• **Handshake** — Handshake (formerly Career Gear) is career management software that allows students to apply for on-campus interviews and allows employers to view student resumes. Also provides web-based student resume help and national job postings.

• **Hawkes Learning System** — Hawkes Learning Systems specializes in mathematics software and textbooks and provides a comprehensive system for teaching and learning mathematics.

• **Health Promotion System** — The ASU Health Promotion System is used by the Health Promotion department to administer its services to Faculty and Staff. Functions include the recording and tracking of medical services rendered, screening test history, groups, and events. The system is designed to have the look and feel of Banner, resides within the Banner framework, and consists of Oracle Forms and SQR reports.

• **Help Desk** — The Call-In Technical Support Center (828-262-6266) is tier one support for technology-related issues. The HelpDesk offers technical information and resources, provides technical solutions, and can refer more complex situations to support personnel who specialize in that particular area. Information is logged into a support management and tracking system to facilitate problem tracking and resolution. This support unit is also responsible for communication to the campus via email and our web support portal to provide the university with pertinent and timely communication regarding IT issues on campus. The Help Desk handled more than 17,000 service calls via phone and online support during 2012-2013. This support team continues to keep apprised of new technologies and software by attending a variety of workshops, and participating in online courses.

• **Housing Management System** — A full-featured web-application which allows students to apply for and manage their residence hall assignments. Administrative features allow staff to view student information, manage housing applications for upcoming terms, track room assignments, manage Residential Learning Communities, and more.

• **HR Acuity** — Human Resources employee relations and investigation case management software.

• **HR Data Mart** — The Human Resources Data Mart is a combination of Banner data, FOCUS programs, and Oracle Tables and views to provide a General Administration-required view of ASU Human Resources related data. The HR Data Mart creates a clearinghouse of HR information that will eliminate duplicate entry into the PMIS system, as well as provide constant, timely and accurate feedback to campuses and GA. For problems or issues: https://systems.appstate.edu/

• **Hyperion (Brio)** — Oracle’s Hyperion Interactive Reporting connects university administrators to Banner data and gives them a complete set of tools to support administrative decisions by allowing ad hoc client/server querying, reporting, and analysis all in one application. Hyperion provides these capabilities: Data extraction Data analysis Reporting and distribution

• **iClicker** — Appalachian State University adopted iClicker as the preferred classroom student response system (SRS) on our campus beginning in Spring 2011. Originally, multi-faculty workshops were scheduled to familiarize faculty with the setup and deployment for classes of the new system, but current training is handled by Learning Technology Services (LTS) consultants via a scheduled classroom visit with the instructor to assure successful setup of the equipment. Technical support and support for integration and use of SRS within the AsULearn LMS is provided by...
The Goldbook is an online community for Appalachian alumni to find and connect with fellow Appalachian alumni, update their contact information, post class notes and manage their communications from Appalachian. The Alumni Affairs office uses the Goldbook (Encompass) to send e-mail communications to alumni, parents and friends and to manage online giving pages for donations to the ASU Foundation. All of the Encompass products are hosted by iModules.

InfoReady Review — InfoReady Review is a web application for managing internal Appalachian competitions and awards. InfoReady Review can support a variety of academic competitions including: limited submissions, internal funding competitions, student and faculty awards, scholarships, and grant funding.

IntelleCheck — IntelleCheck® is a software package from Evisions® that Accounts Payable, the Foundation office, and Payroll use as part of their payment processes. It is installed locally on an ASU VM, has a web-based interface, and works with Banner.

Internet Explorer — Internet Explorer is a graphical web browser included as part of the Microsoft Windows line of operating systems.

Internship Inventory — The Internship Inventory is a web-application for managing student internship experiences. It helps faculty members track the approval workflow for each internship, enforces State Authorization Rules, provides Internship Contract generation and storage, provides for lookup of emergency contact information, and allows reporting on previous internships.

ITS Timeclock for Student Workers — The time clock used for all hourly student workers in Information Technology Services is a web based system developed by the IT programmers specifically for the areas of ITS. ITS has student workers in the Technology Support Center, Classroom Technology, the Computer Labs, the Help Desk, and administrative areas of IT. This time clock system is also used for student employees of Lucy Brock and the Hayes School of Music.

IVS - Interactive Video Services — IVS (Interactive Video Services) provide real-time, High Definition or Standard Definition quality interactive video experiences for Faculty, Staff and Students. Real-time interactive video provides the opportunity for instructors, needing a one-time master class with a visiting professor from across the globe or teaching an ongoing consortium class with peer classes around the state, nation, or world, to provide students the capability to interact in real time with experts and other peers. Our primary conference room seats 7. Through our partnership with the NC Research and Education Network (NC-REN), we can network up to 39 unique sites from nearly anywhere in the world. We can also stream events in real time and/or archive a stream for later usage. In addition, IVS provides classroom instructional videos and promotional videos for academic and other departments. IVS houses and maintains professional grade video cameras, lighting and audio equipment, as well as editing software and associated computer gear. Faculty members work with IVS to record content with HD cameras and professional lighting and audio, and providing the Faculty member with a high quality mp4 version. The Faculty member can then stream that video limited to users within the AsULearn environment (outside access not available) or via open streaming, freeing up valuable instruction time. The service formally announced in early 2012 now sports completed production of 36 instructional videos with 4 currently in production. Averaging roughly 6 minutes apiece, a single video used with a class of average size (26 students), for a complex task or skill (e.g., lab or machine setup, intricate manual operations) which would otherwise require significant individual instruction, might feasibly save an instructor roughly 2 1/2 hours of one-on-one instruction, and subsequently provide for instructor-free review by the student.

Videos used for multi-section courses would scale to larger audiences essentially cost-free, once the videos had been produced.

J

JAMF Pro Management Suite (Casper) — The Jamf Pro Casper Management Suite (formerly Casper Server) allows ITS to manage Mac OS X clients including: Inventory, Imaging, Patch Management, Software Distribution, Remote Control, Settings Management, License Management, and Usage Management. Jamf Pro also allows ITS to offer iOS & Mac device management (MDM). This includes a Self Service console for over-the-air (OTA) distribution of in-house and App Store apps, and integration with Apple’s Volume Purchase Program (VPP), the Casper Suite allows ITS to easily manage iOS mobile devices including: Inventory, Configuration, Security Management, and App Distribution.

Jantek Time Clocks — Jantek Time Clocks is a brand of punch-clocks and management software for tracking and reporting hourly workers time. Administrators in various departments upload the data to where it can be processed through Banner Payroll.

Java — Java is a set of several computer software products and specifications that provide a system for developing application software and deploying it in a cross-platform computing environment.

JMP — JMP dynamically links statistics and graphs to explore, understand, and visualize data using simple statistical tools. All SAS software has been provided free as part of a $3 million grant from SAS Institute to the University of North Carolina system. Version 9.3 on the Alpha/VMS cluster and Windows Baseyachts SAS, SAS/STAT, plus 20 subsystems Enterprise Guide - point and click access to SAS JMP - interactive statistical graphics (for Windows and Mac) SAS Enterprise Miner for Data Mining is available to faculty, staff and students for home computers (visit Educational Media Services or use the Application Launcher on your office computer)Obtain a license: Log in Fill out this form to get your license file Download the installer here (requires login with your appstate gmail account).

JumpForward Compliance Toolbox — The JumpForward Compliance Toolbox provides state-of-the-art technologies that centralize the entire recruiting, reporting and compliance function for athletic departments. JumpForward’s proactive Compliance Solutions are designed and audited by experts with over 100 years of combined NCAA Compliance experience. Appalachian interfaces with our Enterprise Banner system to gather bio-demo, academic, as well as Financial Aid information on our student athletes.

K

Kendall Hunt — Kendall Hunt is a web-based software program used by the Health, Leisure and Exercise Science Department as a fitness assessment and reporting program. The assessment includes a variety of health-related physical fitness tests that assess aerobic capacity; muscular strength, muscular endurance, and flexibility; and body composition. Scores from these assessments are compared to Healthy Fitness Zone® standards to determine overall physical fitness and suggest areas for improvement when appropriate. Kendall Hunt was developed in an
Kurzweil 3000 — Kurzweil Education Systems specializes in providing reading and writing software to assist people who are blind or partially sighted or have learning disabilities. Kurzweil 3000 provides a reading, writing and study platform aimed at people with learning disabilities or other disabilities that make reading or writing difficult. It's used to support people with Dyslexia, Dysgraphia, English Language Learners in school, higher education, at home and in the work place.

Labster — Labster provides a virtual lab environment for students. CAS wants to pilot this software in the Biology Dept during the Fall 2019 semester for approximately 4 sections of online classes to help alleviate classroom crowding/space issues. Labster can also provide virtual lab environments for Chemistry and Medicine courses; this is not being looked at now, but is a potential down the road.

LASSO — LASSO is a software package which integrates with Appalachian's learning management system (LMS), AsULearn, to automatically collect student artifacts, distribute to evaluators, and collect evaluations for LMS assignments flagged with specific, targeted, site-wide learning outcomes. The application was primarily developed for Gen-Ed use in their student learning assessment. LASSO collects artifacts flagged in the LMS, converts text-based ones to PDF format and stores others in native format, then arranges them into queues for specific evaluators established by an assessment coordinator, for subsequent viewing and assessment according to predefined rubrics attached to the various learning outcomes. LASSO can also collect and deliver non-text artifacts which are collected by presenting them to the evaluators’ web browsers for viewing the standard applications, depending on the format of the collected work products.

LDAP Authentication — This authentication allows for electronic access to several services including: AppalNET, Banner Self Service, ResNet.

Learning Spaces Classroom Technology — Our mission is to support/maintain/standardize all University Classrooms according to the SMART Classroom standards for classroom technology. Currently we have 252 Smart Classrooms, out of a total of 308 General Classrooms, for a total of 82% of classrooms having standardized technology. On average, the classroom technology is utilized 60% of the time during the academic day. The majority of the usage of equipment is data projector and desktop computer. Standard Equipment Our standard classroom equipment includes: multimedia data projector, electric screen, Podium consisting of: computer, Smart Interactive Pen Display, DVD/VCR combo or Blu-ray, Epson / Elmo document camera, Extron Switcher, and Extron amplifier & Extron ceiling/wall mounted speakers. We are currently transitioning to the ALL DIGITAL classroom solution including digital laptop inputs.

LearningSpace Matrix Assurance — CAE's LearningSpace product is simulation center management solution for health care simulation programs. Our Department of Nursing uses the program.

Library - Digital Collections — Appalachian State University Digital Collections consist of rare and historic material and are made available online through the efforts of the Belk Library and Information Commons and the departments of Special Collections, Web Services, and University Archives. The collections include the Beulah C. Campbell Collection, the Lumbee Indians: an Annotated Bibliography, and Documenting Appalachia, which consists of the Abrams Folksong Collection, the Greer Folksong Collection, Appalachian State Historical Photograph Collection, and Appalachian Ethnicity Resources. Appalachian State University Library's Digital Collections are provided free for educational use under Fair Use as outlined by current U.S. Copyright law and accompanying guidelines.

Library - Digitization — Part of the service mission of the library is to protect the community’s collective memory. Digitization complements preservation by protecting the original and providing far superior access. University Archives and Records works closely with Belk Library and Information Commons to identify, manage, preserve and share Appalachian State University's records. The Digital Collections can be accessed by going to the website: https://library.appstate.edu/digital-scholarship-initiatives

Library - E-Learning — Library e-Learning is a collection of online resources and services, accessible anywhere for Distance Education Students. Distance Education students have access to the full array of Belk Library and Information Commons resources and services: Remote access to the online catalog (find books and more) and over 400 research databases (find articles and more) E-reserves, e-journals, e-books and more. Targeted library services are available, as currently registered distance education students, if all ASU classes are off-campus: Books mailed to home address -- at no charge Articles not available online -- sent via the web Staff to assist with research needs -- via chat, phone, and online (web conferencing and in the AETZone) View the Orientation highlighting these services and more Visit the website for more information: http://guides.library.appstate.edu/distance-education

Library - E-Reserves — e-Reserves (Electronic Reserves) are items that are scanned and placed on the web. The following materials can be placed on reserve: Books, audio discs, and videos from the library collection. Personally owned books, audio discs, and videos. Audio discs and videos must be original, duplications will not be allowed. Instructor-prepared items such as: sample exams or quizzes, lecture notes, and homework assignments. Electronic selections from books or journals that meet copyright guidelines for fair use. Journal articles available through the library databases will be linked on your course page.

Library - Server Administration — Library Server Administration provides service to the University Library by maintaining library servers including setups, updates, troubleshoot issues, maintain backups, plan for purchases based on future needs, writes programs, coordinates work and communicates with ITS, provides service to Western North Carolina Library Network(WNCLN) as needed, and available 24/7 for emergency calls to resolve connection or other availability issues. Services maintained by Library Server Administration, (excluding content), includes the Library WEB Server, ILLiad the InterLibrary Loan Server, E-Reserves storage, digitization storage, Rooms 114 and 421 Google Calendar Booking system, Group Study Booking server, Student Library Jobs server, WNCLN database issue tracker, Library Surveillance System, ContentDM digitization server, Omeka (digitization) server, Library LISETERVE, LDAP server, MySQL, PostgreSQL, MS SQL, Thermal Counting, and internal use services for the Library. Library Server Administration provides access to services on these servers for students, faculty, staff, and University Police on a per need basis. Support is directly to Library personnel or those referred by Library personnel or Tech Support Services.

Library - Videography — Belk Library and Information Commons provides videography services for special events hosted by ASU faculty, staff, and University-recognized student organizations. The types of events recorded include: Guest speakers Performances Conferences Meetings Services Offered 1080p high-definition recording of events anywhere on the ASU campus Basic editing services Raw footage copied to DV tape

Linux Containers (LXC) — Enterprise Linux Systems offers shell access to individual Linux systems in an LXC environment. These systems are well-suited for education and research, custom application development, and web public web application hosting. Administration and patching is
- Mahara — Mahara is the campus’ student ePortfolio system and is an open source web application. Using Mahara students can maintain ePortfolios for the duration of their academic careers to document and advertise their academic accomplishments in a much more meaningful way than is available solely with a traditional course-at-a-time grade model. Students are able to upload academic or personal artifacts and present collections of them in various ways apropos of any number of distinct audiences (e.g., for courses, programs, advisors, or potential employers).

- Maple — Maple is a computer algebra system where users can enter mathematics in traditional mathematical notation. There is support for numeric computations, arbitrary precision, and symbolic computation and visualization.

- MATLAB — MATLAB is a numerical computing environment and programming language that allows matrix manipulations, plotting of functions and data, implementation of algorithms, creation of user interfaces, and interfacing with programs written in other languages, including C, C++, Java, and Fortran. Licensed products for MATLAB Software: Bioinformatics Toolbox Parallel Computing Toolbox Image Processing Mapping Toolbox Neural Network Toolbox Optimization Toolbox Partial Differential Equation Toolbox SimBiology Signal Processing Toolbox Symbolic Math Toolbox Statistics Toolbox Wavelet Toolbox

- Maxient — Database and workflow management for student conduct allegations and violations.

- Medicat and MedPortal — Medicat is an Electronic Medical Records system for Health Services. Student facing services are also provided via the MedPortal, which allows students access to secure communication with health providers as well as update their health history and immunization records.

- Microsoft Office — Microsoft Office is comprised of administrative, communications and business applications. Microsoft Office 365 Students, faculty and staff can now download the Microsoft Office 365 Suite free of charge using their university credentials. Microsoft Word Microsoft Excel Microsoft PowerPoint Microsoft Outlook Microsoft OneNote Microsoft OneDrive Microsoft Publisher (PC only) Microsoft Access (PC only) Microsoft Office Windows: Microsoft Access Microsoft Excel Microsoft InfoPath Designer Microsoft InfoPath Filler Microsoft OneNote Microsoft Outlook Microsoft PowerPoint Microsoft Publisher Microsoft SharePoint Workspace Microsoft Visio Microsoft Word Microsoft Office Mac: Microsoft Connection Microsoft Excel Microsoft Outlook Microsoft PowerPoint Microsoft Word Microsoft Office is available through Software Center for University Machines.

- Microsoft Visio Pro — Microsoft Visio is a diagramming and vector graphics application.

- Microsoft Windows — Microsoft Windows is a series of graphical interface operating systems developed, marketed, and sold by Microsoft.

- Minitab — Minitab is a statistics package that features data and file management, regression analysis, power and sample size, tables and graphs, multivariate analysis, nonparametrics, time series and forecasting, statistical process control, measurement system analysis, and analysis of variance.

- Mobile Phone and Data Plans — The University has a state contract with Verizon to provide a variety of mobile phones, data plans, and mobile hotspots for business purposes. ITS is the central point of contact for this contract and works with departments to make needed purchases through p-card or a direct pay form.

- Mobile Print — With the Pharos Print Mobile app, print job can be submitted to the queue via a web browser or mobile device and released after arrival in the Lab or Library. Computer labs use a charge per print system called Pharos. A local printer queue is for printing in the labs and a campus printing queue is for printing in any campus lab. After printing, the student will go to the Pharos station and swipe his/her student ID card. A list of printing jobs will be displayed and the student will select his/her file by clicking on the title or computer name. Print jobs are deleted from the queue after one hour. To access this mobile app, go to the app store and search for Pharos Print. To use Pharos Print Center from a web browser go to myprintcenter.appstate.edu. Visit Pharos Print Center and Pharos Mobile Print for instructions and updates.

- myAPP — myAPP is also known as Banner Self-Service for Admissions and is a tab in Self-Service available to potential students who submit an application for admission to the university. Applicants can view their checklist, apply for scholarships, change their intended major, register for Orientation, and complete other requirements for admission.

- MyASU — MyASU is the internal web resource main page for Appalachian State University. It is primarily used by faculty and staff with Quick Links, News and Announcements, Weather, and links to the portals Appalnet and Web Self Service. The address for MyASU is http://myasu.appstate.edu

- Myers Briggs Scoring — The MBTI (Myers-Briggs Type Indicator) assessment is a personality type indicator that classes may use but are not required to do so. ITS Data Control and Test Scoring will scan and email output reports. Our office does not supply MBTI test booklets.

- National Student Clearinghouse — Appalachian State University contracts with the National Student Clearinghouse to provide both enrollment and degree verifications to qualified requestors. The National Student Loan Clearinghouse has an Electronic Transcript Exchange (ETX) service that allows institutions to exchange PDF transcripts through them. This service can be accessed from the National Student Clearinghouse link in Student Self-Service.

- NaturalReader — NaturalReader is a text-to-speech software that can read text from applications including, Microsoft Word, files, webpages, PDF files, and email. These can be converted to audio files in MP3 and WAV formats and also works with OCR software.
• **NetREG - Network Registration** — NetReg is an automated registration system that recognizes and manages devices that are connecting to the ASU network. NetReg collects information about these devices, logs the information, and assigns the device an ASU network IP Address. The registration process is required for any device that connects to the ASU network, both wired and wireless. Students are allowed four registrations. Faculty and Staff are allowed five registrations.

• **Network Infrastructure Management** — ASU provides a wired data network plant to all building facilities on campus comprised of a fiber optic and category 5/6 UTP copper network. Management of the distribution plant is the responsibility of the Physical Plant with design oversight and technical support provided by the ITS Networking group. Connection issues and moves, adds, and changes should originate through the ITS Support system.

• **Network Vulnerability Scanning** — This service is provided by the NICS group to monitor network traffic that traverses the ASU network. We try to scan for traffic patterns that might indicate a compromised device, and then work with the device’s owner to get the problem identified and resolved.

• **Nominations** — The Nominations module allows users to nominate individuals for various awards given by Student Affairs departments. References can be identified, and letters of recommendation uploaded.

• **Off-Campus Properties Search** — Allows students to find roommates and post subleases anonymously. Also allows property managers access to advertise off-campus housing.

• **Omeka** — Omeka is a free, open source web application that is a content management system for online digital collections. Users can publish online exhibits, essays, dissertations, digital objects, and collections, and extend Omeka’s basic functionality with themes and plugins.

• **OpenQwaq** — OpenQwaq is a computer software for collaboration which enables classes and organizations to implement online 3D virtual world workspaces for specific needs. A 3D virtual environment for online instructions using realtime audio/video, text chat, and document editing/sharing. Similar to a gaming environment, users have an avatar and move around a virtual space to meet in small groups, post topics for discussion and interact.

• **Operational Data Store** — The Operational Data Store Database is a Reporting Data Warehouse that contains the Banner Operational Data Store (ODS) a data mart regularly populated by Banner data, and other Student, Advancement and Financial historical and archival data. The Banner Operational Data Store extracts information from Banner administrative systems, organizes it into a simplified format, and stores the information in the ODS database where users can create and deploy operational and ad hoc reports. It is accessed with various Reporting Tools - primarily with Webfocus.

• **ORBIT** — ORBIT is the system that HR transmits monthly contribution files to as well as the system that employees login to for review of retirement history and retirement eligibility.

• **OTRS** — An advanced ticketing system that allows tracking of student or parent contacts and issues. Provides useful metrics and workflow management.

• **Panopto** — Panopto is the lecture capture system currently being deployed for Appalachian State Faculty and Staff. Faculty members use the system for pre-recorded lectures, difficult concepts clarification, expert speaker capture, and top lectures archive. Panopto’s all-in-one video platform brings video recording, webcasting, video content management, search, editing and more to any laptop, desktop, podium or iOS device. Panopto Focus is used for live-stream presentations. It records the presentations and stores them on a video content management system that also provides a web-based media editor.

• **Parent Orientation** — An online registration program for parents attending orientation with incoming freshman and transfer students.

• **Parent Portal** — Parent Portal is Appalachian’s solution for FERPA approved student information access for parent(s)/guardian(s). Students may grant selective access for parent(s) or guardian(s) to financial aid, academic records, student accounts, conduct, and housing information via Student Self-Service. Students can add parent email addresses that will receive electronic copies of billing statements. Students can also create a login pin for Parent Portal access. Parents can go to Parent Portal to view/pay a student's account, view their unofficial transcript, and view financial aid award history.

• **Password Manager** — The Password Manager allows Students, Faculty and Staff at Appalachian State University to establish or update a secure Account Password. Campus networks and information systems require both a Username and the Account Password for authentication purposes. All Faculty, Staff and Students are required to change their account Password every Ninety (90) Days. The University Password Standard allows strong passwords for faculty, staff and students to expire after 180 days. A strength meter is now a part of the password manager and informs the user when the password is created how long it will be valid. Passwords that are not as strong could expire in 90 or 120 days. Change your password by using the Password Manager. The link can be found at https://appstateapp.myappstatepassword.com Passwords should be between 8 and 30 characters Passwords must contain at least 2 of the following 4 options: 1. Uppercase Letters 2. Lowercase Letters 3. Numbers 4. The following symbols: ! - * ' . ( } - In addition, the following password restrictions are enforced: - Passwords cannot be reused - Passwords cannot be too similar to previous passwords (such as adding a number or changing a letter from a previous password) - Cannot contain your name or username - Cannot consist of only a single dictionary word - Cannot contain spaces The following document gives tips for creating and remembering a strong password: https://faq.appstate.edu/answers/secure-password-tips

• **Peoplefluent AAIPlanner** — AAPIPlanner software incorporates census data with institutional data for Affirmative Action/Equal Employment Opportunity reporting, which is required by the NC Office of State Personnel. Institutional Research uses AAPIPlanner software to build reports that are used by the reporting entity on campus (Equity Office/HRS) for the report that is sent to OSP annually.

• **Personnel Data File** — Personnel Data File is an annual General Administration-required file of Faculty, Staff, and Graduate Assistant information. Working with Institutional Research, ASU ITS Enterprise Administrative Applications group created and maintains tables and forms
integrated into the Banner ERP system that Institutional Research, Academic Affairs, the Graduate School and Human Resource Services use to capture the required data. IR uses an additional application created and maintained by EAA under direction from IR that handles data transformation and file creation. IR works with GA and the ASU offices to systematically eliminate exceptions in the data. Annual enhancements are made to support changes in state requirements.

- **Pharos - (Pay-for-Print)** — Pay for print services are available in designated areas/labs across campus. Students, faculty and staff can print Black and White and Color Prints with the charge being deducted from their AppCard.

- **PL/SQL Developer** — The PL/SQL Developer is a tool used by both IT Staff and the Banner module functional area users to query and develop database code for Banner and Banner related Oracle databases. This tool is limited to usage by IT Staff and Banner module functional area users. Requests to use this tool must be made through Banner Security Officers in their functional area or through IT Management.

- **Policy Manual** — The university’s electronic policy manual.

- **Position Control Budget Revision** — The Position Control Budget Revision form provides an enhanced vehicle for entering budget revisions that has the added benefit of tracking the revisions in a history table. It is an ASU enhancement to Banner. Problems or issues, contact: https://systems.appstate.edu/

- **Print Queue Creation** — Create and manage print queues for shared network based printers via a central print management server. This includes building printers on a central server with required drives to automate network printer installs and setting permissions for various users and groups.

- **Print Shop - Mountaineer Printing** — Mountaineer Printing is a student run print shop that operates through the Graphic Arts & Imaging Technology program. Students are expected to complete the job based on the client’s expectations with the utmost professionalism and in a timely manner. Mountaineer Printing is located in Katherine Harper Hall in room 140. Mountaineer Printing offers several printing services including digital, offset, flexography, screen, and other printing processes.

- **PuTTY** — PuTTY is a terminal emulator, serial console and network file transfer application that supports several network protocols, including SCP, SSH, Telnet and rlogin.

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**Q**

- **Qualtrics** — Qualtrics is a Research Suite for an enterprise online survey software solution that empowers you to collect, analyze and act on relevant data. Qualtrics also has an Offline Survey Module, available for iOS and Android, which allows you to administer surveys on your mobile device without an internet connection. Responses can be collected in the field on your mobile device and then uploaded back into Qualtrics as soon as you have an internet connection. For access to Qualtrics Offline Survey Module, please contact Mark Suggs (suggsmh@appstate.edu) ASU Qualtrics Login Page: https://appstate.az1.qualtrics.com

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**R**

- **RATEX Business Solutions** — RATEX Business Solutions is a software solution used by the University Bookstore for the operation of the store. It includes solutions for inventory management, accounting, point-of-sale, e-commerce, etc.

- **Red Lambda** — For preventing inappropriate use of P2P and copyright infringement, we utilize tools like Packet Shaper and a software program called Integrity by Red Lambda. The Integrity product detects use of P2P applications like Limewire and Bit Torrent and will send notices to users discussing the ramifications of P2P, copyright infringement, and DMCA. This software does NOT look at the contents of files. These notices are used as an educational opportunity first and foremost.

- **REDCap** — REDCap (Research Electronic Data Capture) is a secure web application for building and managing online surveys and databases. REDCap provides audit trails for tracking data manipulation and user activity, as well as automated export procedures for seamless data downloads to Excel, PDF, and common statistical packages (SPSS, SAS, Stata, R). Also included are a built-in project calendar, a scheduling module, ad hoc reporting tools, and advanced features, such as branching logic, file uploading, and calculated fields.

- **Remote Services** — Remote Services includes all ASU approved VPN methods, Microsoft Remote Desktop, the uSTORCloud network file management system, and VMWare Horizons uDesk virtual desktops.

- **Risk Assessments and System Testing** — OIS evaluates and tests software, data procedures, and physical environments for potential security issues and helps identify potential measures that can help lower risks. Risk assessment and security testing services include: Department Risk Assessment - We help departments identify procedural and technical risks that can lead to information security or business continuity issues. Vulnerability Scanning - We scan networked devices and servers to identify common security issues, then we identify needed fixes. Software Testing - We review software applications and agreements to determine potential security risks. Web Application Testing - We test web applications for common flaws and security weaknesses that might result in a security compromise.

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**S**

- **Safari** — Safari is a web browser included with the Mac OS X and iOS operating systems.

- **SAS** — SAS is a system of software products that assist programmers in a variety of areas including (but not limited to) data management and warehousing, statistical analysis, business planning, operations research, applications development, and remote computing. All SAS software has been provided free as part of a $3 million grant from SAS Institute to the University of North Carolina system. Version 9.3 on the Alpha/VMS cluster and Windows Base SAS, SAS/STAT, plus 20 subsystems Enterprise Guide - point and click access to SAS JMP - interactive statistical graphics (for Windows and Mac) SAS Enterprise Miner for Data Mining is available to faculty, staff and students for home computers (visit
Educational Media Services or use the Application Launcher on your office computer) Obtain a license: Log in Fill out this form to get your license file Download the software here (requires login with your appstate gmail account). For installation help, follow along with this SAS installation tutorial (DOCX).

- SCCM Server - (System Center Configuration Manager) — The SCCM Server is used to manage Windows clients including: Imaging, Driver Management, Software Distribution, Patch Management, System Inventory, Asset Intelligence, Software Metering, Remote Control, and Reporting. SCCM also is the central management system for System Center Endpoint 2012 Protection.

- Securing the Human Training Videos — Securing the Human is an online computer-based security awareness and training program that provides faculty and staff with the materials they need to engage in informative and efficient security training. The training is an excellent opportunity for departments to ensure their staff is aware of cyber security threats and issues. Securing the Human is produced by SANS, one of the most trusted and by far the largest source for information security training and security certification in the world. The training consists of a number of videos that cover specific security topics. The videos range anywhere from 1 to 5 minutes in length and are intended to raise awareness and influence user behavior that will reduce security risks. The training allows the users to complete the training at their own pace, monitor their progress, and revisit completed training.

- Security Awareness (Educating the Campus on Security) — Security awareness and training are important in bridging the gap between the controls to protect data and the human interaction with that data. Information Technology Services has a security website: http://security.appstate.edu where Basic Computer Security is discussed as well as the latest phishing attempts on campus. Desktops and laptops provided by the university should be running the security build. Doing so automatically provides the essential three security requirements: Automatic Updates

- SelectSurvey — IMPORTANT NOTE: Our access to the Select Survey web survey software is being phased out in favor of the university’s newly sight-licensed package, Qualtrics, licensed in September 2014. All new surveys should be created using the Qualtrics software, particularly since there is no direct way to move a survey from Select Survey into the new system. Qualtrics access and information are available online - see ITS' Qualtrics service page for more information. Access to Select Survey will be eventually phased out as more surveyors begin to use Qualtrics.

- Self Service for iOS Application Distribution — Using the JAMF Pro Suite's Self Service interface, users are able to install iOS apps with a single tap or select from a customized list of recommended apps. Using Self Service, TSS can easily suggest recommended apps to users based on smart groups or deploy Provisioning Profiles and License Codes that allow them to install apps on their own.

- Series 25/ R25 — Series 25 is a series of tools for optimizing classroom and event scheduling, space and resource management, web calendar publishing, as well as master planning and reporting. It allows users to view events, locations and resources, schedule events and assign locations and resources, and check location and resource availability. As well as offering a graphic display of near real-time course schedule data from Banner, Series 25 displays all other events occurring in campus teaching spaces. All this is available via the AppEvents portal. The system's X25 Tool delivers rich, consumable, interactive information via true dashboards and ad-hoc reporting.

- Shibboleth — Shibboleth is a single sign-on service which provides authentication and authorization services for several systems, including ASUlearn, PeopleAdmin and others.

- SigmaPlot — SigmaPlot is software used for graphing and data analysis.

- SketchUp — SketchUp is a 3D modelling program for architectural, civil, mechanical, film, and video game design applications.

- Slate — Slate is a customer relationship management system, including outreach, travel and event management, online applications, online reading, reporting functionalities and an applicant portal software solution provided by technosolutions. The Office of Undergraduate Admissions, Distance Education and the Graduate School utilize Slate. For undergraduate students: ugrad.appstate.edu and for graduate students: grad.appstate.edu

- Smarthinking — Smarthinking is a provider of research-based, research-proven online tutoring to help institutions of higher education increase student achievement, boost retention, and enhance learning. This online tutoring service is provided to Distance Education students at Appalachian State University and is available 24/7. Students can get live tutoring, attend online writing labs, and schedule appointments with specific tutors. Smarthinking can be accessed from the Learning Assistance Services link in Student Self-Service. http://www.smarthinking.com

- Snagit — Snagit is a screen capture software that captures video display and audio output.

- Social Media at Appalachian State University — Appalachian State University uses several forms of Social Media to communicate with prospective and current students, alumni and current faculty and staff. The types of Social Media used is: Facebook, Twitter, YouTube, Pinterest and Flickr You can view the complete Appalachian State Social Media Directory by going to the website: http://www.appstate.edu/college/#smlist

- Tableau Software — Tableau Software consists of a family of products designed to produce or display interactive data visualizations (Wikipedia). Tableau Software consists of two primary components used by ASU at this point: a desktop development tool (editions: Desktop Professional, Desktop Personal, or Public) and a Tableau cloud server offering (Tableau Public Premium). The desktop tools enable data to be visually analyzed by simply dragging and dropping the various data elements onto a workbook. These visualizations can then be shared to the web.
Users are able to interact with many of the visualizations placed online, enabling them to see just the portion of the data in which they are interested. Certain visualizations also have the ability to be downloaded and interacted with using the free Tableau Public Reader. For examples of Interactive Reports: https://irap.appstate.edu/

- **TechExcel ServiceWise** — The tracking system that Information Technology Services uses is called TechExcel ServiceWise. This system allows users to enter a request for help and it is routed to the appropriate area to expedite a solution. To enter a support request, go to the following link and log in with your ASU username and password.

- **Technology Support Center** — The Technology Support Center provides computer support for students, faculty, and staff of the University. The Technology Support Center provides service on personally-owned and University-owned computers of all types. Services include virus resolution, software installation, hardware diagnostics, Internet support, game console support, and warranty service for Dell, Lenovo, and Apple brands. Technology Support can provide ASU Internet and ASU e-mail setup on wireless devices such as phones, iPads, iPods, and Kindle Fire. The Technology Support Center also coordinates with Electronic Student Services to send employees into the dorms in the evening to address Internet issues. The Technology Support Center also provides rental equipment to faculty/staff such as laptops, cameras, projectors and screens, podiums, speakers, TVs, PA systems, and tripods. Students have limited access to rental equipment. Technology Support provides software for personally owned computers at a discounted rate to faculty/staff. Students can receive SAS, SPSS, and ArcGIS from The Technology Support Center. Copier and Printer Support address issues with Sharp copiers on campus - also one of our service offerings. The Technology Support Center also addresses DMCA (Digital Millennium Copyright Act) issues and provides students with the education necessary to avoid these conflicts. During the 2011 – 2012 academic year, the Technology Support Center resolved 18,914 support requests via the computer check-in system, e-mail, equipment rental, phone, ResNet, and walk-in support. Eligibility Note: Basic service performed on all computers, but comprehensive warranty service is provided for Dell, Lenovo, or Apple according to each manufacturer’s warranty terms. In other cases, Technology Support provides hardware diagnostics and recommend replacement parts and service according to the unique circumstances for each case.

- **Telephone Services on Campus** — AT&T provides campus-wide Life Safety and FAX phone service. ITS provides VOIP (Voice over Internet Protocol) phone service for all Faculty and Staff.

- **Terra Dotta** — Terra Dotta is a software solution used by the Office of International Education and Development at Appalachian. This software is used to help maintain federal reporting compliance and streamlines International Programs' administrative processes.

- **Test Scoring - Scantron** — Electronic Test Scoring allows the capability to have in-depth statistical data e-mailed to users through test scoring of student scantron sheets. A true/false/multiple choice test may be scored using a computer test scoring program provided by ITS Data Control and Test Scoring. The program data consists of seven distinct parts and the user may select one or more of the output sections. The seven reports available are: Exam Analysis - includes response percent frequency Summary of Student Responses - list of student scores and incorrect responses for each question Student Results - prints percent scores, Z-scores and T-scores Histogram - distribution of the scores List of Student Responses - prints all responses with incorrect responses marked Posting Sheet - list of scores by Special Codes number Spreadsheet File of student scores, sent as a .CSV email attachment that opens as an Excel file AsULearn users can upload test scores from the .CSV file. Our office has a step-by-step instructional handout available that will assist you with this process. All users of this service must use the General Purpose – NCS – Answer Sheet, form No. 30423, and are required to complete a run request sheet before the test can be processed. Please bring completed scantrons/run request sheets to Room 216 Anne Belk Hall. Obtain a copy of the test scoring run request sheet (DOC).

- **The Food Processor** — The Food Processor is a nutrition and fitness software that uses a database for comprehensive nutrition analysis.

- **Thunderbird** — Mozilla Thunderbird is a free, open source, cross-platform email, news, and chat client.

- **TicketPH/ProVenue** — TicketPH / ProVenue is used for selling and printing tickets for The Schaefer Center for the Performing Arts and Valborg Theatre events. TicketPH is the vendor.

- **Time Clock Plus** — Time Clock Plus is a time and attendance system that is generally used for student employees. Time Clock Plus provides multiple ways to enter time, including, a website, mobile application and card swipe timeclocks.

- **Titanium** — Electronic scheduling and case note management for the Counseling Center.

- **TK20** — TK20 is an assessment system that allows students to upload their work in course-based assignments and portfolios and faculty members to assess those assignments in a longitudinal database (e.g. the student's assessments are housed for seven years). Most commonly, TK20 is used to track common assignments for the College of Education's Teacher Education program.

- **Total Contract Manager** — Total Contract Manager (TCM) is a hosted software module from JAGGAER (formerly SciQuest; also the company who makes ‘YoMart’ SAAS software). TCM’s intention is to consolidate the management of all non-employment university contracts into one application. TCM provides the University the potential to go paperless in the contracting processes beginning with a contract request, allowing for dynamic approvals, negotiation/red-line and finally sending to an electronic signature application. Departmental personnel submit a contract request online which goes through several layers of approval until it gets to a 'Contract Manager' who is someone designated to handle the execution of the approved contract request. The Contract Manager works with Appalachian's legal office if the contracts warrant it, and arranges electronic signature be completed. The software was purchased in November 2016.

- **Turnitin** — Turnitin is a suite of Internet tools that offer several academically useful services for evaluation of writing assignments, including originality of reports, simplified/systematic grading of papers, peer-review of writing, and on- and off-line access to student-submitted, written work. Faculty or students themselves can submit writing assignments to Turnitin for checking once a faculty member makes Turnitin available through his or her AsULearn course.

- **TutorTrac** — Redrock Software developed TutorTrac to meet the needs of tutorial services centers within higher education. Functionality includes appointment scheduling interface for hired tutors, payroll generation, student record database, comprehensive reporting functions, and add-on components for generating surveys and administering Academic Progress Reports to/from faculty on special programs students.

- **uDesk Virtual Desktops** — AppVDI or uDesk Virtual Desktops are cloud based Windows desktop environments. It could be thought of as Your computer in the cloud. uDesk Virtual Desktops provide the standard campus Windows 7 desktop, including automatic access to uStor. Additionally, uDesk will remember your personal settings (bookmarks, application customizations, etc...) between sessions. As added security, uDesk Virtual Desktops are refreshed automatically after you logoff. This means every time you access uDesk you will be getting a clean brand new desktop, but your personal settings are retained. uDesk Virtual Desktops can be used for multiple tasks including, but not limited to: general
computer use, distance learning, faculty and staff training, and at home or traveling access to your data and standard applications. uDesk supports access from all major client platforms including, Apple iPad, Android tablets, Mac and PC computers. uDesk can be accessed here. Scheduled maintenance to uDesk Virtual Desktops will be announced at least 7 days in advance of work being performed via campus listservs. Emergency maintenance will be announced as quickly as possible via campus listservs. Every effort will be made to provide 24/7 availability of services. However, in the event of multiple system failures, services may be disrupted. In this event, every effort will be made to restore services as quickly as possible.

- **UNC-GA Files** — The office of Institutional Research, Assessment, and Planning works with the University of North Carolina's General Administration (UNC-GA) numerous times throughout the year to submit a variety of data files containing official Appalachian data. Data file examples are the Student Data File, SDF Graduated File, Financial Aid File, Preliminary Applications and Acceptances File, Course Data File, Course Grade File, Course Location File, and the Personnel Data File. To Request Service or to Report Problems, contact the following: Student Data File, Financial Aid File, Graduated Student Data File: Cathy Ziegler (zieglercc@appstate.edu) Student Courseload File, Course Description File, Course Grade File, Course Location File: David McClune: (mcclunedg@appstate.edu)

- **uStor** — uStor is the file storage system for the University. uStor provides both individual and departmental storage areas. The individual storage areas are available for individual use and are not shared. The departmental storage areas can be configured to provide sharing for the whole department or with a limited set of users, both internal and external to the department; or any combination of the two. All individual and departmental storage areas are given a space quota in gigabytes. uStor also provides the ability for the end user to be able to recover any files deleted within the last 7 days without requiring assistance from ITS. After 7 days, ITS will assist faculty with access to the backup files. Scheduled maintenance to uStor will be announced at least 7 days in advance of work being performed via campus listservs. Emergency maintenance will be announced as quickly as possible via campus listservs. Every effort will be made to provide 24/7 availability of services. However, in the event of multiple system failures, services may be disrupted. In this event, every effort will be made to restore services as quickly as possible.

- **Virtualization (VM) Hosting and Management** — ITS provides Virtual Machine hosting and management for enterprise and non-enterprise services. VMware vSphere is the hosting platform used to provide these services. The VM hosting service provides high availability of VMs hosted in the service. Redundant high speed storage systems with automatic fail-over ensure underlying storage availability. The service is made up of multiple hosts that provide automatic restart of VMs in case of host failure. The network infrastructure supporting the VM hosting service is composed of redundant network switches, ensuring continuation of network availability in case of network switch failure. Additionally, the hosts are housed in both campus data centers ensuring availability in case of data center failure. The VM hosting service automatically load balances VMs between hosts, ensuring performance of hosted VMs is maintained. All types of services and applications are supported in ITS' VM environment. It is strongly recommended that any consideration for purchasing new software or applications, consider hosting the service in a VM first, as this is the preferred method recommended by ITS. VM hosting service management will provide support of the hosting infrastructure. However, VM hosting management cannot provide guest operating system or application management or administration. VM hosting management is available to provide consulting and recommendations on how best to host your application in the VM environment. Maintenance of the VM hosting service, in general, does not require outage of hosted VMs as VMs can be relocated without loss of services to other hosts. If maintenance will require any outage of service, ITS will provide this information at least 7 days in advance via campus listservs. If emergency maintenance is required, and depending on breadth of issue, we will inform affected groups or campus as needed. Every effort will be made to provide 24/7 availability of services. However, in the event of multiple system failures, services may be disrupted. In this event, every effort will be made to restore services as quickly as possible.

- **VIVID** — VIVID is an online safety training and records management system administered by the department of Environmental Health Safety and Emergency Management. To access this training, go to Employee Self Service. Choose the Employee tab, then choose Online Health and Safety Training Courses.

- **VoiceThread** — VoiceThread is a collaborative, multimedia slideshow that holds images, documents, and videos. It allows people to navigate between slides and leave audio, video, or text comments on each slide.

- **VPN** — Junos Pulse is Appalachian’s installed, client based solution that creates a virtual private network or a secure connection/tunnel back to our campus network allowing off campus users access to on campus only resources. When installed, the Junos Pulse client also gives you the capability to access your university computer from home. In order to use this system you are required to install the Junos Pulse client, and authenticate with your Appalachian State University username and password.
campus web designers and editors with web guidelines and accessibility issues. Works with departments and organizations to find and update content on their websites. Assists students, faculty, and staff with getting their own web space. Updates content on AppalNet and MyASU.

- **Web Hosting/Content Management (Student)** — ESS provides web hosting for the Division of Student Affairs as well as all student clubs and organizations on campus. ESS has over a decade of experience providing content management services and web application development. Web sites are managed using phpWebSite, a content management system built with an application development API and a simple user interface. ESS currently maintains more than 265 campus websites. If your organization or department needs a website please fill out a consultation form at http://ess.appstate.edu/consultation-form.

- **Web Services** — Drupal is the content management system used for web development at ASU. Drupal is open-source and is known for combining ease of use with power and flexibility. Drupal is easy to use. Experience with web development, programming, Dreamweaver or HTML is not needed. Drupal helps to ensure that your website meets the standards required by the American Disabilities Act and saves time by staying current within the university theme. Drupal Workshops are available at http://workshops.appstate.edu.

- **WebFocus** — WebFocus is an enterprise reporting platform that delivers rich, consumable, interactive information to the widest range of employees, managers, analysts, partners, and customers via solutions such as dashboard and ad hoc reporting. It offers true do-it-yourself reporting with unmatched scalability.

- **Windstar** — All international employees enter data into Windstar to determine taxation status and tax treaty eligibility.

- **Wired Hardware** — This service has to do with the design, configuration, deployment, and monitoring of the wired Networking Infrastructure of the ASU campus (hardware devices).

- **Wired Software** — This service has to do with software, whether purchased or developed, that monitors and manages the Networking Infrastructure of the ASU campus (hardware devices).

- **Wireless Networking** — Appstate Wireless allows you access to ASU’s WIFI network to access network applications and resources without the needs of a wired connection. The different options are: ASU Secure wireless allows you to access network applications and resources in a secure network. ASU Visitor is for casual Internet access only. It provides absolutely no form of encryption or privacy. It should only be used by University visitors that do not have a valid ASU login name (computer user id) and requires non-private network access. It must never be used to perform official University business.

- **Word Perfect** — Word Perfect is a word processing application owned by Corel.

- **Workshops (Banner Training)** — Banner Training Workshops are available to employees who access Banner in their job responsibilities. Access and training is available for the specific roles of the employee. Banner Workshops are available through http://workshops.appstate.edu.

- **Workshops (Hubbard Center)** — Faculty and Academic Development plans, implements, and evaluates a wide array of workshops and related events each year. Topics for the workshops are derived from a variety of data: state and national trends in higher education, local issues and needs, evaluations from previous workshops, and conversations with faculty. While some workshops feature regionally or nationally renowned speakers, Appalachian faculty members with special interest or expertise in the topic facilitate most of the workshops. Workshops are open to all full- and part-time faculty members. Sign up for workshop online at https://cae.appstate.edu/professional-development/workshops-and-events.

- **Workshops (Information Technology Services)** — Information Technology Services offers workshops and online conference opportunities periodically throughout the year. These workshops and conferences are announced on http://its.appstate.edu and through email to Faculty, Staff and Students depending on the workshop topic.

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**X**

- **Xitracs** — Xitracs is an accreditation and compliance management software solution used by Appalachian to prepare accreditation reports. Xitracs includes modules for storing and updating information about faculty credentials for accreditation reports, and can be used for regional accreditation (i.e. SACS Commission on Colleges) or disciplinary accreditation processes (such as NCATE or AACSB). Xitracs can also be used as a repository for assessment data.

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**Y**

- **Yo-Mart** — Yo-Mart is the university eProcurement system that Faculty and Staff use to purchase items not available from the Central Warehouse. It is a hosted system from JAGGAER. It allows for greater purchasing power for UNC member institutions via economies of scale. It also provides for better analysis of the university’s spend. The system communicates with Banner to obtain PO numbers. For problems or issues, contact: https://systems.appstate.edu/

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**Z**

- **Zoom Web Conferencing** — Appalachian’s web conferencing tool, Zoom, allows faculty, staff, and students to interact live via a web interface. Web conferencing allows anyone with a computer and Internet connection or a mobile device with the app installed to interact with two-way audio, video, chat, screen sharing, breakout rooms, recording, and more. Users can send invitations to any email address, so it is easy to bring in participants from outside the University. All faculty, staff, and students have Zoom ‘Pro’ accounts, and are equally able to use this product, both to host and to attend meetings. You can use Zoom web conferencing tools to: Host meetings of up to 50 participants from a computer or mobile device Winterize your course and meet virtually during inclement weather Bring in guest speakers from distant locations, including those external to the University Hold virtual office hours. Use one of our limited ‘webinar’ licenses to host a meeting of up to 500 users. Faculty can also easily add a Zoom meeting to any AsULearn course via the integrated Zoom meeting activity in AsULearn. Users can access Zoom via our custom landing page at: https://appstate.zoom.us; via the Zoom Mobile apps; or via the Zoom activity in AsULearn (for Teacher role in AsULearn only).