2011-2012 DoIT Annual Report

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Overview
The 2011-2012 Division of Information Technology Annual Report provides an overview of the major accomplishments of the division from July 1, 2011 through June 30, 2012, as well as goals for fiscal year 2013. New to the division this year is the responsibility of audio and video at major venues on campus. Also new is a partnership with the School of Communication to provide a broadcast-quality TV studio.

Mission Statement
The Division of Information Technology is committed to delivering a strategic advantage to Radford University by fostering creative and innovative use of technology to achieve the University’s objectives. The division promotes effective stewardship of information assets and provides a secure, highly reliable technology infrastructure along with high-quality, customer-oriented services and support, so as to meet the ever-changing needs of students, faculty and staff.

Special Award and Recognition
Council for the Advancement and Support of Education Award of Excellence
Web Communications’ multimedia/website project “Happy Halloween from Radford University” received an Award of Excellence from the Council for the Advancement and Support of Education Region III.

Division Highlights
- Enhanced and Upgraded IT Infrastructure to support information systems and services in a secure, highly available and high-performing environment.
- Enhanced features and functionality of the Banner ERP system and other ancillary systems to improve efficiencies and provide information for strategic decision making.
- Enhanced audio systems in the Bondurant Auditorium and the Covington Center.
- Installed technology for the new College of Business and Economics (COBE) building providing the latest network, WiFi, classroom and AV functionality for this state-of-the-art facility.
- Launched Radford University’s mobile app (RUmobile), providing an iOS and Android mobile app with schedule, grades, dining hall menus, bus routes and more.
- Developed a new Project Management Standard and a new Infrastructure, Architecture and Ongoing Operations Standard to better manage information technology resources.
- Installed lecture capture systems in 12 classrooms, allowing faculty to record lectures and presentations.
- Enhanced software for student-owned computers, classrooms and labs needed for research and instruction.
- Upgraded security alarm systems to enhance the safety and well-being of our students and employees.
- Upgraded learning spaces in several buildings with the latest in digital technology.
- Upgraded the television studio to a professional, state-of-the-art facility to allow for “live” broadcasts.
- Completed the discovery phase of the Identity and Access Management Project, which includes a strategy and recommendations toward the selection of IAM products and services.
- Enhanced web communications by completing Phase III of the university website, producing multimedia projects, developing a mobile web strategy, and deploying a feature-rich mobile app.
Mission Statement
The mission of Academic Technologies is to provide and support a high-quality, customer-oriented technology environment for faculty and students that supports the instructional and research needs of the university community.

Major Accomplishments
Desire 2 Learn Support and Training
With the rollout of Desire 2 Learn during Fall 2011, Academic Technologies provided a high level of assistance to faculty making the transition to this new learning management system. A large number of one-on-one sessions and additional training workshops were held throughout the year to ensure the success of this transition.

Software to Report Lab Utilization
Academic Technologies acquired a new software package to track usage statistics of campus computer labs. This software will be installed in all general purpose use and departmental computer labs. The data collected by this software will assist in planning for upgrades and support of technology across campus.

Enhanced Software for Student Owned Machines
In an effort to provide software needed for course research and assignments anytime and anywhere, Academic Technologies obtained campuswide agreements with Mathematica, JMP, SAS and Kurzweil to provide students, as well as faculty and staff, the ability to install this software on their personal computers.

Enhanced Software Updates in Classrooms and Labs
With the increased presence of technology in the classrooms, requests for software installation continue to grow each semester. Academic Technologies has begun using application virtualization to deploy software to campus computers. This strategy provides quicker turnaround time and improved efficiency.

Disk Imaging and Remote Maintenance Enhanced
Academic Technologies has transitioned to Microsoft System Center Configuration Manager (SCCM) for maintenance of Windows computers on campus. This implementation has streamlined the imaging and allows for remote installation of software on classroom and lab machines. This system will provide a foundation for patching third-party applications on all campus Windows computers.

Goals for 2012-2013
• Implement a system for patching third-party applications on campus Windows computers.
• Establish a Virtual Desktop environment providing enhanced functionality to the campus community.
• Research and implement tools to better manage mobile devices.
• Research and implement a strategy for printing from mobile devices.
• Enhance training for faculty, students and staff.
• Provide enhanced support for faculty and students in the use of Desire 2 Learn.
• Research and develop a Windows 8 implementation strategy.

With the increased presence of technology in the classroom, Academic Technologies has begun using new software packages and learning management systems, including D2L.

By the Numbers
• 116 technology workshops provided to faculty and staff
• 240 faculty staff computer upgrades (PC and Macintosh)
• 25 computers provided to new faculty
Auxiliary Services

Mission Statement
The mission of Auxiliary Services is to provide essential business services and support to the Radford University community in order to assist in accomplishing the core mission of education. Our goal is to provide the highest quality customer service and to respond to the ever-changing and unique demands of a top-tier institution of higher education through the use of technology in the specific areas of identification card services, parking services and telephone management. Our staff of dedicated professionals stands ready to serve the students, faculty, staff and visitors of Radford University.

Major Accomplishments
CBord CS Gold System Upgrade (RU Express)
The CBord CS Gold system was upgraded from 5.30 to 6.0.10 in January 2012. This system is used for all RU Express card transactions on campus as well as electronic door access and campus security alarms. During this upgrade, the system was moved from a 32-bit Oracle 10 based architecture to a 64-bit Oracle 11 based architecture. This upgrade provided additional security and alert functionality to better manage the RU Express systems and transactions on campus.

Security Alarm Upgrades
Auxiliary Services installed a new system and made major upgrades to the security system in the Student Counseling Center, the Disability Resource Office and the Student Health Center. These improvements greatly improve the security for our students and staff in these areas by making it possible to alert the RU Police Department immediately in case of an emergency. This also allows us to meet audit requirements for the pharmacy in the Student Health Center.

Parking Changes
Auxiliary Services worked closely with Facilities Planning and Construction, as well as numerous other areas from across campus, to make changes to parking to accommodate the major ongoing construction projects. The cumulative impact of the construction projects was a proposed loss of 223 faculty and staff parking spaces. Through re-assignment and a small amount of construction, a plan was developed that resulted in less than 20 lost spaces for faculty and staff. The overall impact to all customers was reduced from a loss of 377 parking spaces to a loss of only 74 spaces.

COBE Door Access
Auxiliary Services worked with Facilities Planning and Construction to plan and implement card access on all exterior doors of the new COBE building. This adds to the already technology-rich environment of the facility and, in terms of safety, it allows the RU Police Department to have the ability to lock down the building in case of an emergency.

Goals for 2012-2013
- Coordinate the design of a new campus ID card and begin replacement of faculty, staff and student IDs.
- Update the monthly telephone billing process providing departments with better information about their monthly phone bill.
- Assist with the development of written policies and standards for the operation and maintenance of electronic door access, security alarms and video surveillance cameras.

By the Numbers
- 7 new alarm systems installed
- 21 snack machine card readers converted from serial to Ethernet connections
- 86 beverage machine card readers connected to RU Express
- 33 new electronic door access locations added
- 16 new IP laundry card readers added in residence halls
- 2 new Micros cash register locations added in Dining Services
- 325 average calls per week answered at the campus switchboard
- 9,298 parking permits issued to students, faculty, staff and visitors
Electronic Engineering and Communication Services

Mission Statement
The mission of Electronic Engineering and Communication Services is to provide up-to-date engineering and technical support for electronic classrooms, the cable television system, the WVRU radio station, satellite downlink facilities, distance education infrastructure and operations, digital signage infrastructure and operations, electronic repair, and video streaming services.

Major Accomplishments
College of Business and Education Building
Fourteen new advanced electronic learning facilities in COBE, as well as a multipurpose room and a special lecture facility were completed. In response to faculty feedback and building design, the DoIT standard electronic classroom was altered slightly to allow for a more aesthetic and functional room environment. The electronic multimedia equipment normally associated with “teaching” locations in many classrooms was moved to a special closet located near or adjacent to the room. Only functional elements are exposed to the students and the faculty member. This design allows the technology to blend into the room while retaining all of the functionality.

Each electronic learning space in COBE was evaluated to provide the best possible teaching and learning experience. Much of the electronic design had to follow the architectural design of the room to achieve a blend of features and function. Additional circuitry was added in the COBE design to provide a sustainable approach to lighting and environmental controls and powering down systems when not in use.

Learning Space Upgrades
Thirty-eight electronic learning spaces have undergone upgrades in the past year, starting with Reed Hall in August 2011 and finishing with DPT in Roanoke in June 2012. Each room upgrade received a new Crestron control system to allow a “touch” selection of multimedia devices. The video projectors added to each room are HD quality with bright, high-resolution images. Walker 279 received both a video conferencing upgrade and a lecture capture upgrade to make it an ideal location to train faculty on the use of both technologies.

The Doctor of Physical Therapy program received four new classrooms. Ultimately eight new facilities, including new classrooms and classrooms with portable equipment, will be constructed on the eighth floor of their facility.

Upgrades to three electronic learning spaces were also made at the Roanoke Higher Education Center to provide comparable classrooms to those in main campus facilities.

Lecture Capture
New video and audio technology for recording lectures and electronic presentations was installed in 12 classrooms. This technology allows instructors to record their classes and enables students to view classes they may have missed or to review previously recorded lectures and presentations.

EAS-CAP (Emergency Action System – Common Alert Protocol)
Receivers have been installed to alert the public and our students to potential threats using both the RU cable television system and campus radio station. Previously, Radford University did not have a way to bring this signal into the cable TV and radio station. These alerting systems required a special initiation which was both time consuming and complicated.

By the Numbers
- Campus cable TV was upgraded from a 118-channel system to a 120-channel system featuring 21 channels of high-definition programming.
- 14 new multimedia classrooms constructed in the new College of Business and Economics (COBE) building.
- 38 campus classrooms were upgraded with the latest digital technology.
- 8 learning spaces were upgraded in Peters Hall.
- 3 classrooms were upgraded at the Roanoke Higher Education Center.
- 5 classrooms were upgraded for the Doctorate of Physical Therapy program in Roanoke.
**Radford Television Studio Uplinks**
A professional quality encoder and new studio lighting has been added to the Porterfield television studio. This lighting includes both fluorescent and LED lighting, which provides a tremendous savings in power while providing a state-of-the-art television facility. Together with new high-definition cameras purchased by the School of Communication, the Radford studio will compare with many high-end television facilities. This will be appreciated by the many students who train in this facility, but also by faculty who will now be able to do “live” interviews with television entities such as CNN, Bloomberg and other broadcast television channels.

**Audio Upgrades**
New audio equipment has been added to the Bondurant Auditorium, the Covington Art Museum, and to the Covington Center foyer. These new digital audio systems and speaker systems provide crisp sound and better distribution throughout the venues. Plans are also underway to install new audio equipment in the Hurlburt Hall auditorium and Muse Hall banquet room.

**Weather Station on Muse**
A new Davis Instruments remote weather station has been added to a location on top of Muse Hall. This will be a valuable weather reporting tool for weather decisions made by emergency management and a valuable resource for students and faculty.

**New Digital Signage Infrastructure**
Two additional channels have been added to the now 120-channel RU cable television system. Channel 14.1 will add an HD information channel similar to channel 14, which displays campus information programming. Ultimately, this signal will be distributed to up to 50 locations on campus featuring digital signage displays. This method of signal distribution offers a major cost savings while featuring excellent quality display technology. The other channel will offer HD movies to residence halls.

**Goals for 2012-2013**
- Add additional electronic lecture capture rooms on the RU campus.
- Convert digital signage to an HD TV channel to provide more campus coverage and reduced costs.
- Add additional electronic learning spaces on campus and provide additional services with a campus-connected Crestron Fusion server. This server will allow additional record keeping and reporting to keep all electronic learning spaces on RU’s campus in top working order.
- Add additional locations on campus to provide live video and audio connection possibilities. These connections can be used for a variety of purposes, including commencement ceremonies or other special events broadcasting.
- Convert the campus radio station facilities into more modern digital audio studios.
- Build an audio and video technology team that can enhance presentations all over campus.
- Work with designers on new electronic learning spaces in the new Center for the Sciences.
- Build a new telepresence facility for distance education and enhanced video conferencing.
Enterprise Systems

Mission Statement
The mission of Enterprise Systems is to provide systems analysis, design, programming and implementation services supporting all university administrative systems including the Banner ERP system, Operational Data Store (ODS), reporting environment, MyRU portal, Radford.edu and other systems used to conduct and manage university business. This includes:

• Actively partner with our customers to evaluate and recommend business services where additional automation increases efficiencies for system users;
• Planning and implementing fully integrated administrative systems;
• Providing university employees access to transactional and historical data for operational and strategic planning purposes; and
• Engaging the university community to develop and enhance the Luminis Portal framework.

Major Accomplishments
RUmobile – Radford University’s Mobile App
This year Enterprise Systems licensed and implemented the Mobile Connection mobile framework from Ellucian for use in the deployment of a mobile app. The app is available for iOS and Android devices. It provides class schedules, grades, dining hall menus, bus routes and more.

Student Check-In Process
Development and implementation of the digital Student Check-In process was completed. This process ensures that students confirm their intent to attend RU in the upcoming term, and prompts them to review and update their personal and emergency contact information. During the first term that this process was used, more than 90% of returning students utilized the process, resulting in improved accuracy and completeness of personal and emergency contact information.

Student Profile
Development and implementation of the Self-Service Student Profile page was completed. This page provides a one-stop easy-to-use view of critical student information for use by select university officials during urgent or emergency situations.

Banner Relationship Management – Undergraduate Admissions Implementation
Working with Enrollment Management, Enterprise Systems completed the installation, setup and implementation of the Banner Relationship Management (BRM) as an add-on to the Banner Suite of applications. BRM will allow automatic tracking and contact management for admissions prospects and applicants, ensuring that no prospective students are overlooked.

Hosting of the Mid-Atlantic Banner Users Group Conference
The Enterprise Systems group planned and hosted the 11th Annual Mid-Atlantic Banner Users Group for the first time at RU in October 2011. This two-day conference provided learning and networking opportunities for Banner institutions in the Mid-Atlantic region. A record 340 attendees from 50 different institutions attended the event. RU staff presented 24 sessions during the conference and provided campus tours and an evening networking event. A pre-conference training day was also offered for developers to introduce them to the new Banner architecture.

By the Numbers

• 8 Cognos training workshops were held
• 87 custom reports were developed for the campus community
• 106 user-requested changes were made to existing reports
• 4,320 downloads of the RUmobile app
• 340 attendees from more than 50 institutions were hosted at the MABUG conference
• 27 Banner upgrades and 17 patches
Streamline Processes for New Students
Many new processes had been put in place previously with the implementation of Banner, Nelnet and the Housing Management System. However, timing issues related to the required integrations with these separate entities were causing some confusion. Processing was reviewed and analyzed to determine how these separate systems could be integrated in a more streamlined fashion. Many improvements were implemented allowing the students to almost immediately move from application, to account creation, to deposit, and to housing, resulting in a better student experience.

Retirement of the Falcon and Voyager Legacy Systems
All needed information on the legacy system was migrated to the Banner system and/or archived for reporting purposes and the system was decommissioned. The legacy imaging system, Docuware, has also been completely archived.

Systems Integrations
Many of the integrations developed during the Banner ERP implementations received an upgrade this year. The processes were streamlined and refined through automated job monitoring, resulting in increased reliability and increased customer satisfaction. These improvements have now become the standard for all future integration processes developed by Enterprise Systems.

MyRU integrations for single sign-on were enhanced this year. The University Tickets web application, PeopleAdmin system, and the D2L integration was reworked into a servlet-based process.

Parking extracts were also developed to import personal information from Banner into the RU Express system thereby improving communications to customers and reducing manual intervention.

The development and implementation of Housing Deposit Waivers integration with the Housing Management System was completed thereby improving customer service to students and accuracy of the housing assignment process.

Keeping Current with New Database Architecture and Database Features through Software Releases and Patches
This year the Oracle Application Server was slated for de-support for use with Banner INB. It was replaced with a similar more modern application server – Weblogic. Issue resolutions and enhanced functionality for Banner were installed and implemented via smaller incremental releases and patches. In the Banner ERP environment, 26 interim releases were installed along with 17 patches.

Additional releases and patches were applied to the following ancillary systems:
• HMS Odyssey Housing and Judicial Systems
• Degree Works degree audit system - Curriculum Planning and Advanced Reporting
• Nelnet payment processing
• eVA Procurement – Integration
• Redrocks Advisor Trac and Tutor Trac Systems
• Banner Document Management System

New Functionality for Radford.edu
As migration of websites continues into the CQ Content Management Systems, the system has been upgraded and new functionality has been developed by the Web Services team with direction from Web Communications to augment and enhance the already rich toolset for publishing content to Radford.edu. Some of the enhancements developed this year include:
• Full width slideshows
• Large image decorator
• Tag filtering for news item lists
• Automatic image rotation for slideshows
• Generic pop-up messages
• Additional theme options for departments and colleges
• iCal web service extracts
• Event web service extracts
• External RSS feed display
• Facebook feed display
• Reasons to Love Radford
• Homepage photo gallery - auto-rotation and pause
• Generic Schedule display
Banner Enhancements and Improvements
Enterprise Systems continued developing and enhancing functionality in the administrative systems. Some of the projects included:

- Implementation of the new Banner Document Management System Web Application to the campus community. This improved the stability of the imaging process and decreased the dependency on desktop installations.
- Developed processes to allow Academic Technologies to implement IT Asset transfers within the Banner Fixed Assets module.
- Collaborated with the Data Standards Committee to define and develop supporting processes for personal data record ownership.
- Streamlined processes for Human Resources to verify I9 information for newly hired adjunct faculty.
- Worked closely with RU Purchasing and COV Department of General Services to implement the Commonwealth’s Vendor Data Standards initiative to comply with state regulations.
- Implemented the Banner Fringe Budget Transfer process to enable automated budget transfers for fringe benefit costs resulting in increased efficiencies and productivity in the Budget Office.
- Completed the implementation of the CIPPS Payroll process for Banner Finance/Payroll and enabled the Accounts Payable office to decommission the legacy process, and improve reporting and efficiencies in the finance process.
- Implemented enhancements to the budget development life cycle, resulting in streamlined processing of security changes at the open and close of the annual cycle.
- Developed processes to identify financial aid students whose previous balances fell outside of the federal regulations. This ensures compliance with federal financial aid regulations.
- Completed enhancements to the online summer financial aid application for students without FAFSA data. This assisted in improving customer service for financial aid applicants.
- Provided enhancements to the online scholarship application to allow applicants to apply for additional scholarships.
- Developed and implemented the on-campus meal plan change process in Self-Service Banner to allow on campus housing students to independently change meal plans prior to the start of the term. This process increases efficiency, accuracy and productivity in the RU Express and Student Accounts offices.
- Developed process to import parent information into Banner from admissions applications and orientation registrations.
- Implemented processes to populate Advancement constituent salutations per business rules to create seven district salutations for use in communications with constituents.
- Implemented an automated import of ACT scores into Banner through the use of Nolij Data Transfer.
- Implemented the Grant Proposals module in Banner. Worked closely with Finance and Administration and Sponsored Programs to configure and develop processes for Sponsored Programs grant proposals to be entered and tracked.
- Enhanced the process for Quest registration by adding PINs for student access resulting in improved efficiency and accuracy.

A New Direction for MyRU
The university’s intranet, MyRU, has been reviewed and evaluated this year to determine the future direction of this technology. In the next year, MyRU will have a new architecture base and framework, as well as a new look and feel developed with guidance from Web Communications. This upgrade will bring leaner, more modern features to the portal, along with improved stability and maintainability.

This past year, additional features were added to the portal, including the personal information channel, which displays the user’s name, RU ID, State ID, address information, email and emergency contact information along with links and instructions for updating these items. The Application Checklist channel was enhanced to include in-state and out-of-state
information, housing information and a facelift to the design of the channel. The Help Desk channel utilized by IT support staff also had improvements, which include the display of additional user information for use in assisting and troubleshooting issues.

**Reporting**

The main reporting platform used to present information from the Banner ERP is the Cognos Business Intelligence Suite. Cognos consists of reporting tools for simple and complex queries and is in use throughout campus. The data repository used for reporting, the Operational Data Store (ODS), has an automated data load from the Banner ERP.

The Data Warehouse and Reporting (DWR) group continued to maintain the Cognos environments and develop custom reports utilizing ODS. The group also provided training for Cognos users on the use of reports and for those who create their own reports. This year the group was heavily involved in the Banner Relationship Management (BRM) system implementation in preparation for the associated implementation of the Reporting and Performance (RAP) portion of BRM which is planned to be operational in Fall 2012. RAP will provide additional data visualization output in the form of graphs and dashboards. An upgrade to the ODS is also in progress in support of RAP.

This year the DWR team developed 87 custom reports for the campus community and completed 106 enhancements. The team also delivered or coordinated eight Cognos training sessions throughout the year. The security and access environment for Cognos was also revamped this year providing for more efficient provisioning, de-provisioning and certification of user accounts.

**Goals for 2012-2013**

- Complete implementation of the BRM Reporting and Performance module.
- Migrate reporting environment to Cognos 10, greatly enhancing the user and developer environments through the use of new modules – Business Insight and Business Insight Advanced.
- Complete needed upgrades to systems ensuring continued vendor support and enhanced functionality.
- Train and prepare for entrance into the Banner 9 platform.
- Continue Banner Workflow implementation.
- Replace paper human resources forms with Banner ePAF functionality.
- Implement additional admissions campaigns in BRM to efficiently track communications with contacts.
- Increase Banner Document Management System usage campus-wide.
- Complete Faculty Load and Compensation project to replace current adjunct faculty hiring and assignment process.
- Migrate Sponsored Programs proposal history data into Banner ERP.
- Expand use of Nolij Data Transfer to include graduate admissions and Praxis scores.
- Implement of the Commonwealth’s Purchase to Order standards.
- Complete implementation of QAS for batch processing.
- Implement nightly Banner data clean processes.
- Implement web clients for Form Fusion and Nolij products.
- Implement Banner Travel & Expense Module.
- Analyze and plan for additional snapshot and summary data history storage in the Enterprise Data Warehouse.
- Complete integration between the Banner ERP and Facilities AiM system.
- Complete Banner to Lyris integration for Advancement communications.
- Develop and implement an IT Document Repository using the SharePoint platform.
- Install and implement new architecture for the MyRU portal.
- Complete servlet to allow Banner users to reset passwords through the use of a token.
- Install and implement the CQ Digital Asset Manager module.
- Develop a CQ page with embedded Bus Tracker functionality.
- Develop Admissions counselor map functionality in CQ.
- Develop needed components for the implementation of a mobile optimized Radford.edu.
- Complete CQ development of Admissions Tour registration application for Radford.edu.
Identity and Access Management

Mission Statement
The mission of Identity and Access Management at Radford University is to manage user access, troubleshoot access-related issues, and to manage the identities of individuals and organizations associated with the university. To accomplish this, the following tasks are carried out:

• Review the university’s current identity- and access-related processes and identify areas for improvement;
• In coordination with the Technology Assistance Center, troubleshoot access and identity related issues; and
• Work with stakeholders to implement new workflows and processes to improve the management of access and user identity data.

Major Accomplishments
Reviewed Established User Roles
Reviewed the user roles that can be assigned to individuals and organizations associated with the university. The user roles were reviewed for appropriateness of access that is provided to each role, and to verify that the role is valid within the current computing environment.

Engagements with Gartner Group
Engaged the Gartner Group during spring of 2012 to review user identities, system access, account management workflows, and to develop a three-year project timeline for the implementation of an identity management system(s) and workflows.

Review and Revision of the Employee and Faculty Separation Process
In coordination with the Technology Assistance Center, Human Resources, and the university’s Database and System Administrators, revised the separation process to improve the response time for access removal when staff or faculty members separate from the university.

Revision of the Employee and Faculty New Hire Process
In coordination with Human Resources, and Academic Technologies, the preparation for the bi-monthly new hire orientation program was revised to improve the user account activation process.

Improvement of the Access Request Process to University’s Administrative Systems
In coordination with the University’s Data Owners and Database Administrators, improvements were made to the access request process of the university’s Administrative Systems.

Goals for 2012-2013
• Move into Phase II of the identity management project, which will include continued revisions of current access and identity related processes, and implementation of a new system(s) to assist with the management of the identities of individuals and organizations associated with the university.
• Continue to improve the employee separation process for improved response time and accuracy.
• Reduce the time of resolution for access and account related issues.
• Continue to improve the access request process for university’s administrative systems.
Mission Statement
The mission of the Information Security Officer (ISO) at Radford University is to protect the confidentiality, integrity, and availability of the university’s computer systems, electronic data and networks from unauthorized access, disclosure, disruption, modification, or destruction. To accomplish this, the ISO carries out the following tasks:

- Collaborating with and advising individual system owners, data owners, system administrators, data custodians and application administrators as to their IT role responsibilities with regard to information security;
- Writing IT security-based policies, procedures and standards;
- Offering annual role-based information security training;
- Maintaining the MOAT employee information security awareness training system;
- Maintaining the central network intrusion detection system (NIDS);
- Acting as the official DMCA agent for the university;
- Conducting disaster recovery plan testing;
- Leading the Computer Emergency Response Team (CERT); and
- Conducting formal and informal vulnerability assessments of systems and applications.

Major Accomplishments
IT Security Awareness Training
MOAT IT Security Awareness Training was completed by 1,308 employees last year. In addition to the MOAT IT Security Awareness Training, the ISO presented IT security topics and best practices during 14 laptop deployment classes.

Vulnerability Assessments
Forty-four vulnerability assessments were conducted using Nessus and Rapid7 assessment tools. In coordination with the university’s system owners and system administrators, corrective action was taken to correct critical and high-level vulnerabilities.

Disaster Recovery Plan Test
During the spring of 2012, in order to complete necessary upgrades, a controlled shutdown of the main power to McConnell Data Center was completed. Using the appropriate disaster recovery plan, the failover to generator power was completed successfully. Lessons learned during the shutdown will be used to update the disaster recovery plan accordingly.

Goals for 2012-2013
Increase the reporting and alert capabilities of the current Intrusion Detection System (IDS)
- Incorporate the IDS capability into the network that handles Payment Card Industry (PCI) data.
- Increase the number of vulnerability scans that are completed throughout the year.
- Complete a security awareness campaign during the Cyber Security Awareness month.
- Conduct role based training for employees that are designated as system owners, data owners, system administrators, data custodians and application administrators.
IT Infrastructure

Mission Statement
The mission of IT Infrastructure is to provide a secure and highly reliable technology infrastructure for the campus community with a focus on meeting the ever-changing needs and expectations of the university community while minimizing costs.

Major Accomplishments

Technology Infrastructure in the College of Business and Economics Building
Throughout construction, technology infrastructure was purchased and installed in the new COBE building. The infrastructure in COBE is the latest technology and provides high-speed wired and wireless connections throughout the building. COBE is also equipped with the latest in Voice Over IP (VOIP) technology.

Technology Infrastructure in Moffett Hall
Throughout the renovation project, technology infrastructure was purchased and installed in Moffett Hall. The infrastructure is the latest technology and provides high-speed wired and wireless connections throughout the building.

Infrastructure, Architecture and Ongoing Operations Standard
A new infrastructure, architecture and ongoing operations standard was created. This standard was approved and is now the official infrastructure standard for Radford University.

Security Upgrades to RU Wireless Network
As the use of the campus wireless network continues to grow, it is important to enhance the security of information that is transferred over this network. As of August of 2012, all students in Residence Halls are required to use an encrypted connection to access the campus wireless network. The existing unencrypted network is still available in Academic buildings, but will be phased out during the Fall of 2012 ensuring that all wireless users connect via a secure encrypted network.

Redundant Fiber install
New fiber optic cable was installed from Calhoun to Armstrong utilizing a previously unused route. When integrated this new fiber route will provide another layer of redundancy to the campus network.

Faculty/Staff Messaging System Enhancements
Steps were taken to allocate more storage to the faculty and staff email system. This allowed IT infrastructure to increase the default size of every faculty and staff member’s mailbox.

Internet Protocol Version 6 (IPv6)
The first steps in the process of moving to IPv6 have begun. Radford University was able to secure a block of IPv6 addresses via the American Registry for Internet Numbers (ARIN).

By the Numbers

- 8,318 user accounts created
- 53 Lyris email lists created
- 100,000,000+ incoming email messages scanned for SPAM and viruses
- 100 support cases per month on average are using Bomgar remote desktop support tool to assist with problem resolution
- 6 Active Directory servers upgraded or replaced with Windows 2008R2
- 274 departmental shares migrated to a new Windows 2008 r2 clustered file server (Whale)
- 1,600 data connections installed in COBE
- 57 wireless access points installed in COBE
- 864 data connections installed in Moffett
- 36 wireless access points installed in Moffett
- 200 cable TV connections installed in Moffett
- 360 data connections installed in Jefferson
- 21 wireless access points installed in Jefferson
- 89 cable TV connections installed in Jefferson
- 360 data connections installed in Madison
- 21 wireless access points installed in Madison
- 93 cable TV connections installed in Madison
SIP for Long Distance Calling
A proof of concept test was implemented to show the viability of utilizing SIP for long distance calling. Currently SIP providers are being assessed to determine the most cost-effective choice for Radford University.

Active Directory Upgrade
Active Directory, the service that currently provides authentication for many campus systems, was upgraded to the latest functional level. This provides enhanced security and brings Radford University in line with its current IT policies and procedures.

DHCP and DNS Enhancements
Network appliances were installed to enhance the DHCP and DNS architecture, by providing needed redundancy and increased reliability. The installed appliances also increase security by providing role based architecture to administer the system, thus allowing delegation of access as needed to appropriate staff members.

Whale Hardware Upgrade
The underlying hardware and software used in the systems utilized for departmental file shares was replaced with new hardware. This will provide enhanced redundancy, easier administration and flexibility.

Enhanced Firewalling
A Cisco Firewall Services Module was brought online providing better security, reliability and performance. This system provides flexibility in configuration and accurate logging of network penetration attempts. New servers are placed behind this firewall module when installed and existing systems are migrated on an as needed basis.

VMware Replication and Redundancy
New storage infrastructure (NetApp) was purchased to house crucial VMware infrastructure. These storage devices have the ability to improve redundancy and efficiently perform replication tasks between data centers.

Goals for 2012-2013
- Install Cisco Nexus switches in the data centers to improve redundancy.
- Install Cisco UCS blade enclosures to further enhance redundancy and efficiency in the data centers.
- Provide encrypted wireless to all Radford University users.
- Coordinate and install infrastructure in Washington Hall as part of the building renovation.
- Provide infrastructure for a Virtual Desktop Infrastructure (VDI) pilot project.
- Further increase Internet connectivity to increase redundancy and to keep up with growing demand for bandwidth.
- Upgrade the Cisco 6509 Chassis and Supervisor modules in McConnell Library and Jefferson Hall.
- Relocate critical redundant fiber connections to a recently installed fiber route.
- Upgrade VMware to the latest version.
- Provide faculty/staff an alternative to their current H: drive with more capacity.
- Setup infrastructure for a 2008 SQL environment.
- Migrate crucial virtual servers to the NetApp storage infrastructure.
Mission Statement
The mission of Printing and Vending Services is to produce high-quality production printed materials for the university community, while minimizing costs and ensuring timely delivery, and also to provide reliable laundry and full-service vending services to the campus community.

Major Accomplishments
Beverage Contract Transition
The transition from Pepsi to Coca-Cola, which began last year, has been a success. The staff have worked closely with Coca-Cola’s route managers and sales staff to ensure all the needs of the university community have been met.

Snack Contract and Transition
As part of the renewed contract with the Compass Group for dining, snack vending machine sales and maintenance will be provided by Canteen. The transition to Canteen is currently underway with the planned addition of several new vending machines.

Printing Visibility
Several large format pieces, including posters for RU Reads and Women’s History Month, have increased Printing Services’ reputation across campus as the trusted provider for high-quality printing and timely service. Academic programs continue to work closely with Printing Services, which has resulted in outstanding student works, including award-winning graphic design student pieces. Additionally, there has been a large flow of graphic design and interior design student printing requests.

Equipment Enhancements
Printing Services added a high-capacity oversize feeder to its second production quality network color copier/printer, which has increased the ability to balance the load among daily production work (notably long-run pieces). In response to increasing demand for jobs requiring precision cutting, and in consideration of the age of the equipment being utilized, Printing Services has added a second hydraulic paper cutter with enhanced safety and control features.

The addition of synthetic substrates for both standard size laser and wide-format inkjet printing has reduced, but not eliminated the need for laminating. This has helped decrease turnaround times for many projects requiring the durability of lamination, such as signage, while often increasing the quality of the finished piece. Wire binding capabilities have been expanded by an additional punch, which enables thicker documents to receive this type of binding.

Additional Services
Printing Services monitored toner levels and delivered nearly 500 toner cartridges and staple boxes to campus users of the campus copier program.

Goals for 2012-2013
- Monitor performance of the new snack vendor and beverage vendor to ensure the needs of the university community are being met.
- Continue to enhance capabilities and efficiency of the print and copy center.
- Negotiate a new contract for laundry systems including technology monitoring of machines.

By the Numbers
- 673,754 color impressions on two Xerox 700 digital color printers
- 500 unique files printed on the wide format printer, ranging from large academic posters, to indoor signage, to high-profile photographic posters such as “RU Reads” and “Women’s History month.”
- 4,966 cash/check/RU Express across-the-counter transactions.
- 380 deliveries of toner and staples to service the VBS campus copier program.
- 4,000 linen packs for Quest and conferences over the summer.
Project Management and Audit Compliance

Mission Statement
The mission of Project Management and Audit Compliance is to provide effective and efficient management of the university's technology projects and to ensure the division remains in compliance with university, state and federal requirements.

Major Accomplishments

SACS Reaccreditation
Updated WeaveOnline with the Division's goals, objectives, and measures and findings for fiscal year 2012 in support of the SACS reaccreditation. Provided additional response narrative and documentation for SACS standard 3.3.1.2.

Project Management Standard
A new project management standard was created. This standard was approved and is now the official project management standard for Radford University.

APA Fiscal Year 2011 Audit
Successfully completed audit with the Auditor of Public Accounts (APA) with no findings reported. In-depth review of major DoIT areas by the APA included the first of a three-year extensive review of the Banner Administrative System environment, which included web services, application layer, infrastructure, and architecture.

Educause Core Data and Survey
Completed the annual Educause Core Data Survey, higher education’s source for comprehensive IT benchmarking data. This service provides research and analytics used by colleges and universities to inform their IT strategic planning and management.

Reports

Project Management Support
Provided project management support for the following:
- Banner Relationship Management (BRM) implementation
- Identity and Access Management discovery phase
- Faculty Load and Compensation/Adjunct Faculty implementation in Banner
- Banner Travel and Expense module discovery phase
- SharePoint 2010 discovery phase
- PCI Compliance implementation

Project Management System
Continued discovery phase to select enterprise project management and portfolio system for the division. More than 30 project and portfolio management systems were reviewed.

Goals for 2012-2013
- Select and implement enterprise project and portfolio management system.
- Update project management standard and framework (including templates, instructions, and FAQ documents).
Mission Statement
The mission of the Technology Assistance Center is to provide a high-quality, customer-oriented single point of contact for technology support requests, which is accomplished with phone support, walk-in support, and online submissions of user requests.

Major Accomplishments
Centralized Copier / Printer Management Program
The Technology Assistance Center continues to work with departments to review usage and replace older copiers with standard multi-function devices that provide color copy/print/scan/fax functionality. Twenty-six devices were added this year, bringing the total to 118 devices provided through this contract.

Lenovo Hardware Issue
Due to an increase in hardware issues with Lenovo T410 computers, the Technology Assistance Center was able to identify a fan issue on a large batch of university-owned computers. This fan error would result in a computer being unusable until the fan was replaced. Coordination and discussions with Lenovo resulted in the proactive repair of 150 computers.

Remote Assistance Tool
A new tool was implemented allowing Technology Assistance Center technicians to provide enhanced remote assistance to faculty, staff and students. This tool allows users to install a utility for technicians to remotely view the desktop of a customer. Once the support session ends, the software is uninstalled, keeping the client computer secure.

Young Hall Extended Hours
After-hours use of Young Hall continues to grow as students make this a place to study. The Technology Assistance Center is managing a staff of employees to provide technical support and assistance to users during these extended hours. During the fall and spring exam periods, these hours were extended to the weekends, providing students with a place for quiet study 24 hours a day, 7 days a week.

Goals for 2012-2013
• Implement after-hours, holiday and weekend support for Desire 2 Learn (D2L).
• Enhance the quality and level of support provided by the Technology Assistance Center.
• Enhance the skills of support staff through training and enhanced documentation.
• Enhance the IT Knowledge Base, allowing customers to easily find answers to common problems.
• Resolve 60% of incidents on first contact.
• Resolve 70% of incidents within 24 hours.

By the Numbers
• 9,542 incident requests from faculty, staff and students
• 23% first call resolution
• 41% one-day resolution
• 7,282 work orders created for other Division of Information Technology groups
Web Communications

Mission Statement
The mission of the Office of Web Communications is to provide integrated marketing web communications that support the university’s strategic goals. The Office of Web Communications works with divisions, colleges, and departments in maintaining consistent online graphic and editorial identity by:

- Managing and developing the “core” site of the Radford University website;
- Working with University departments to assist with web-related issues including site design, message strategy, content creation, development of multimedia, website templates, content management tools, analytics, usability, and information architecture;
- Overseeing and providing guidance for all departments and individuals with Radford University websites;
- Managing the mobile website and mobile applications;
- Providing strategic direction on social media, e-communications, such as email, e-newsletters, e-postcards and e-alerts;
- Performing research and analysis through site reviews, usability testing, online surveys and web traffic analysis;
- Providing training on content development; and
- Developing, maintaining and disseminating university web standards.

Major Accomplishments
Phase III of the University Website Project
Through a combination of full-service and self-service projects, Web Communications migrated 90 academic and administrative departments into the content management system between July 1, 2011 and June 30, 2012. Additionally, the team brought the Undergraduate Admissions site back on campus (previously hosted by a vendor). This involved recreating the entire site and producing new multimedia elements.

Multimedia Projects
Produced 38 multimedia projects between July 1, 2011 and June 30, 2012. One project (Happy Halloween from Radford University) received an Award of Excellence from the Council for the Advancement and Support of Education Region III. The multimedia producer also provided multimedia in support of the university’s augmented reality application, which is slated to launch in late 2012. The team also produced and launched a 360-degree tour of campus.

User Training
Web Communications held 14 workshops on topics including content administrator training, search engine optimization, social media, using analytics to improve your website and content strategy.

Homepage Student Profiles
Web Communications posted 24 homepage student profiles between July 1, 2011 and June 30, 2012.

Mobile Web Strategy
A mobile website strategy was developed and is presently underway. This strategy will allow content housed within the university’s content management system to be viewed in a manner optimized for mobile devices. In addition to a mobile website, Web Communications partnered with Web Services to launch a mobile application in February 2012.

By the Numbers
- 90 departments migrated into the content management system
- 38 multimedia projects were produced
- 24 student profiles were posted on the homepage
- 14 workshops on Web Communications were held
- 11 million page views to Radford.edu
Search Engine Optimization
Web Communications made strategic search engine optimization revisions to the Radford University website and provided training to other content administrators on SEO implementation. Traffic from search engines increased 71% after the first phase of revisions; the second phase is underway.

Social Media
Web Communications partnered with University Relations to enhance Radford University’s social media presence, including taking over the university’s Twitter, YouTube and Flickr accounts and jointly managing the university’s Facebook and Google+ accounts.

Goals for 2012-2013
- Publish 24 new homepage student profiles.
- Migrate 38 of the remaining departments into the content management system by June 30, 2013.
- Produce 36 new multimedia projects by June 30, 2013.
- Deploy a mobile website strategy for Radford University to include the launch of a mobile website.
- Provide six training workshops on topics including SEO, content strategy, analytics and social media.
- Draft a portal strategy and begin deploying a lean portal solution.

Web Communications brought the Undergraduate Admissions website back on campus (previously hosted by a vendor). This involved recreating the entire site and producing new multimedia elements.
Appendix A | Supported Systems

Banner INB and SSB Modules
- Human Resources
- Finance
- Student Records & Admissions
- Financial Aid
- General Person
- Advancement

Ancillary Systems
- Degree Works
- Ad Astra
- Banner Document Management System (BDMS aka Xtender)
- Banner Relationship Management
- Banner Workflow
- Fsa Atlas
- Operational Data Store
- Cognos Reporting
- Nelnet
- Intellicheck
- UC4 Job Scheduling

Additional Systems Supported by Enterprise Systems
- Campus Call
- Luminis Portal (MyRU)
- Blackboard Connect
- Odyssey Housing & Judicial Management System
- CQ5 Content Management System (RU website)
- Redrocks Advisor Trac and Tutor Trac
- Nolij Transfer
- Quick Address System
- AIM (Facilities)
- Harvest/SCM Change Management

Supported Integrations or Single Sign Ons
- Desire 2 Learn
- Library System
- PeopleAdmin
- CIPPS
- CARS
- eVA
- HMS
- CS Gold (RU Express)
- Visual Zen (Orientation)
- Smart Thinking Online Tutoring
- National Student Clearinghouse
- SDE Helpdesk System
- RU Involved

- T2 Parking
- CollegeNet
- Bookstore (book vouchers)
- Active Directory
- iTunesU
- Adobe Connect
- AlcoholEdu
- Microsoft Live@edu
- Microsoft Exchange

Database Management Systems
- Oracle
- Microsoft SQL
## Appendix B | Alignment of Division Accomplishments with University Strategic Goals

<table>
<thead>
<tr>
<th>2012-2013 Division Highlights</th>
<th>DoIT Strategic Plan</th>
<th>7-17 Strategic Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Enhanced and Upgraded IT Infrastructure</strong> to support information systems and services in a secure, highly available and high-performing environment.</td>
<td>Goal 4</td>
<td>Goal 4</td>
</tr>
<tr>
<td><strong>Enhanced features and functionality of the Banner ERP system</strong> and other ancillary systems to improve efficiencies and provide information for strategic decision making.</td>
<td>Goal 3</td>
<td>Goal 4</td>
</tr>
<tr>
<td><strong>Enhanced audio systems</strong> in the Bondurant Auditorium and the Covington Center.</td>
<td>Goal 4</td>
<td>Goal 4</td>
</tr>
<tr>
<td><strong>Installed technology for the new College of Business and Economics (COBE) building</strong> providing the latest network, WiFi, classroom and AV functionality for this new state-of-the-art facility.</td>
<td>Goals 2 and 4</td>
<td>Goals 2 and 4</td>
</tr>
<tr>
<td><strong>Launched Radford University’s Mobile App (RUmobile)</strong> providing an iOS and Android mobile app with schedule, grades, dining hall menus, bus routes and more.</td>
<td>Goal 4</td>
<td>Goal 4</td>
</tr>
<tr>
<td><strong>Developed a new Project Management Standard and Infrastructure, Architecture and Ongoing Operations Standard</strong> to better manage information technology resources.</td>
<td>Goals 1, 3 and 4</td>
<td>Goal 4</td>
</tr>
<tr>
<td><strong>Installed Lecture Capture Systems</strong> in 12 classrooms allowing faculty to record lectures and presentations.</td>
<td>Goal 2</td>
<td>Goal 2</td>
</tr>
<tr>
<td><strong>Enhanced software</strong> for student-owned computers, classrooms and labs needed for research and instruction.</td>
<td>Goal 2</td>
<td>Goal 2</td>
</tr>
<tr>
<td><strong>Upgraded security alarm systems</strong> to enhance safety and well-being of our students and employees.</td>
<td>Goal 4</td>
<td>Goal 2</td>
</tr>
<tr>
<td><strong>Upgraded learning spaces</strong> in several buildings with the latest in digital technology.</td>
<td>Goal 2</td>
<td>Goal 2</td>
</tr>
<tr>
<td><strong>Upgraded the television studio</strong> to a professional, state-of-the-art facility to allow for “live” broadcasts.</td>
<td>Goals 1, 2 and 4</td>
<td>Goals 2, 3 and 4</td>
</tr>
<tr>
<td><strong>Completed the discovery phase of the Identity and Access Management Project</strong>, which includes a strategy and recommendations toward the selection of IAM products and services.</td>
<td>Goal 7</td>
<td>Goal 4</td>
</tr>
<tr>
<td><strong>Enhanced web communications</strong> by completing Phase III of the university website, producing multimedia projects, developing a mobile web strategy, and deployment of a feature-rich mobile app.</td>
<td>Goal 5</td>
<td>Goal 4</td>
</tr>
</tbody>
</table>