The Office of the CIO provides the vision and leadership in information technology necessary to advance the university’s mission and strategic plan. The mission of the CIO is to offer direction and support for the effective application and integration of information technology to improve the teaching, learning, research, and administrative environment of the university. The CIO reports to the university executive vice president and provost, and oversees the Information Security Office (ISO), Enterprise Information and Analytics (EIA), and University Information Technology Services (UITS).
As I think about this past year, I am amazed at just how much transpired and how strongly we are positioned as we move forward.

A whole new set of strategies and goals are in motion now as we refreshed our IT strategic plan with direct linkages to the university’s strategic plan. This was no small effort as we engaged many people in the process in a very short amount of time. Now we have a plan that reflects a focus on academic success, expansion of research, IT optimization, and building community through partnerships. Our efforts during this next year will be focused on implementing the actions outlined in the plan.

We spent a lot of time building and strengthening our IT community as a whole. We have a list of IT initiatives in motion with participation from diverse areas on campus. Campus IT leaders meet regularly in a variety of venues to discuss, plan, and coordinate our work. I launched the IT Strategy Group comprised of key leads from special interest groups like the Deans IT Council, the Administrative Technology Advisory Council, the Research Computing Governance Council, UITS, the Information Security Office, the IT Student Advisory Board, etc. We had and continue to have joint IT leads meetings, meetings with IT initiatives leads, special interest group meetings, and so on. The first annual IT Summit was extremely successful with over 400 IT professionals in attendance, and planning for the 2014 IT Summit is well under way.

I am exploring additional avenues for increasing communication, focusing more on strategy and vision, strengthening relationships with campus constituents, and creating a space for the voice of campus IT.
One of the actions I took was to modify my leadership team. I now have an Executive Director for Central IT Operations and an Executive Director for Campus IT Operations. The core focus of my new Deputy CIO is on funding and efficiency strategies for IT. And we now have a position dedicated to cloud services. These newly filled positions will allow me to do two key things—focus more on campus IT strategy and build a planning and decision-making process with a well-rounded leadership team representing IT at large. The next part of this process will be to solidify our IT governance structure and continue my efforts to focus on our IT strategies for the future.

All of this happened in addition to the extraordinary amount of work put forth by everyone on a daily basis to improve services; implement new tools; expand features and functions; keep the systems running; solve problems; help students, faculty, and staff; and generally keep up with the ever-growing demand for technology. This report would be never-ending if it included every single accomplishment achieved! But it is a lot.

Yet above the list of things we do, the most important observation from my perspective at this moment is the level of camaraderie and positive energy within the IT community on campus right now. It’s difficult to describe, but this is the strong foundation by which we will continue to make progress going forward.

I can’t wait to see what happens next.
RESEARCH

AZ-LIVE ADDS NEW SOFTWARE

Research Computing’s 3D immersive environment, AZ-LIVE, was upgraded with Unity game development software. Its powerful rendering capabilities for creating interactive 3D content has enhanced the virtual experience to include the effects of shadows and gravity, improving the immersive experience. AZ-LIVE is used for academic and research projects in architecture, landscape architecture, chemistry, medical reconstruction, atmospheric sciences, mathematics, and psychology.

MARS HiRISE IN 3D

Mars researchers from the Lunar Planetary Laboratory (LPL) had the opportunity this year to virtually walk on the planet’s surface. The Mars HiRISE project’s lead digital modeler, LPL senior staff technician Sarah Mattson, and her co-investigator, LPL associate professor Shane Byrne, teamed up with UITS principal research computing specialist Marvin Landis at AZ-LIVE to create large, three dimensional images of Mars. The AZ-LIVE upgrades now allow HiRISE investigators to view the 3D topography models in an immersive lab setting thanks to the help of Mattson’s student worker, Niloufar Emami. Though the collaboration of HiRISE and AZ-LIVE is still in the early stages, they have already begun planning a time-series of Mars images to explore its surface changes.
AZ-LIVE LAB AND SCIENTIFIC VISUALIZATION FY14

16 visualization projects
Increase over FY13: 129% *

19 research projects
Increase over FY13: 46%

18 instructional projects
Increase over FY13: 6%

38 tours

12 workshops, conferences, events
* Multiple campus departments using microscopy in their research labs purchased a large memory workstation and imaging software, located in and supported by Research Computing.

RESEARCH DATA CENTER PIs FY14

- HPC system PIs: 150
  increase over FY13: 25%

- HPC PI awards: $103M
  increase over FY13: 46%

RESEARCH COLOCATION CUSTOMERS

AZ Environmental Grid Infrastructure Service (AEGIS)
Astronomy
Bio5
Eller College Engineering
HeadIT
HiRISE

Human Genome Project
Institute for the Study of Planet Earth (ISPE)
iPlant
Lunar Planetary Lab
OSIRIS-REx
Sahra
Tech Parks Arizona

CENTRALIZED RESEARCH COMPUTING CAPACITY

<table>
<thead>
<tr>
<th>System built:</th>
<th>System 2007</th>
<th>System 2012</th>
<th>System 2015 *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metrics for year:</td>
<td>FY11</td>
<td>FY14</td>
<td></td>
</tr>
<tr>
<td>Cores:</td>
<td>1,322</td>
<td>3,992</td>
<td>?</td>
</tr>
<tr>
<td>increase over FY11:</td>
<td></td>
<td></td>
<td>202%</td>
</tr>
<tr>
<td>TFLOPS of HPC avail:</td>
<td>20</td>
<td>46</td>
<td>?</td>
</tr>
<tr>
<td>increase over FY11:</td>
<td></td>
<td></td>
<td>130%</td>
</tr>
<tr>
<td>%-use:</td>
<td>95.6%</td>
<td>64.6%</td>
<td>?</td>
</tr>
<tr>
<td>increase over FY11:</td>
<td></td>
<td></td>
<td>104%</td>
</tr>
<tr>
<td>Storage capacity avail:</td>
<td>117 TB</td>
<td>1030 TB</td>
<td>?</td>
</tr>
<tr>
<td>increase over FY11:</td>
<td></td>
<td></td>
<td>780%</td>
</tr>
</tbody>
</table>

* The HPC Technology Refresh Advisory Committee is currently defining specifications for the next generation central research HPC system.
EL GATO SUPERCOMPUTER

The University of Arizona leapt to national-level research computing with a new supercomputer ranked 336 among the world’s top 500 fastest supercomputers and 7th in the world for energy-efficient supercomputing systems on the Green500 list. Assistant professor of astronomy Brant Robertson and collaborators obtained a $1.3 million grant from the National Science Foundation to help fund “El Gato” (Extremely LarGe Advanced TechnOlogy system).

In addition to CPUs (central processing units), El Gato uses powerful GPUs (graphics processing units) to allow researchers to run more complex computations at a faster rate and receive more highly detailed results.

Having this technology on campus also allows researchers to learn to program for the advanced government-funded XSEDE research facilities.

Co-investigators from the College of Science; School of Information Science, Technology, and Arts; and UITS partnered on the grant. Implementation was made possible with additional support from the Office for Research and Discovery.
Software developers and business analysts from UITS partnered with campus academic advisors to create Smart Planner, a tool that generates semester plans for a student’s entire path towards degree. The Smart Planner team then worked with Tech Launch Arizona to take the software nationwide. Smart Planner is currently licensed to Boise State University and to the California State University campuses at Long Beach, Chico, and San Marcos.

SMART PLANNER USERS
An online tool used by students and advisors to plan courses through graduation
Spring 2013 (implementation)–June 30, 2013: 3,959
July 1, 2013–June 30, 2014: 13,945

DEGREE SEARCH USAGE
An online tool used by potential and current students to explore major options

<table>
<thead>
<tr>
<th></th>
<th>FY13</th>
<th>FY14</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total page views</td>
<td>990,557</td>
<td>1,118,752</td>
<td>+13%</td>
</tr>
<tr>
<td>Unique visitors</td>
<td>169,835</td>
<td>239,001</td>
<td>+41%</td>
</tr>
</tbody>
</table>
QUALTRICS AND ESRI LICENSES SIGNED

The Office of the CIO, the Dean’s Information Technology Council, and the UA Site Licensing Task Force negotiated two significant license agreements for the campus community. Qualtrics is a robust, high-quality instrument to develop online, offline, and mobile surveys. Environmental Systems Research Institute (ESRI) is a suite of geographic information system (GIS) software, ArcGIS. These licenses increase access to important academic tools and reduce costs to the UA research and instructional community.

UAVITAE PILOT COMPLETED

UAVitae completed a pilot in spring 2014 at the College of Agriculture and Life Sciences, College of Fine Arts, College of Medicine – Phoenix, Mel and Enid Zuckerman College of Public Health, and College of Social and Behavioral Sciences. The new online system automatically populates publications and courses taught into faculty portfolios. Additional grants, presentations, creative works, and research data can be added. This data repository can then be used to generate bios, curricula vitae, and reports for reviews. For fall 2014, the system is ready for 17 of the 21 academic departments.

ECONTENT PILOTS COMPLETED

The Office of the CIO, UITs, Office of Instruction and Assessment, UA BookStores, University Libraries, and Student Affairs partnered to pilot eContent. During the fall 2013 semester, eight courses and 433 students used interactive, digital textbooks provided free on the Courseload eContent platform, as part of a nationwide EDUCAUSE and Internet2 pilot. A campus-only spring 2014 pilot included 5 courses and 275 students and focused entirely on free, open educational resources and content provided by University Libraries. Based on the information obtained from the pilot, the eContent Oversight Committee is taking steps to prepare campus for the likely increased use of eContent in the future.

GUARANTEED TUITION

UITS led the project, partnered with Financial Aid, Bursars, Admissions, and Student Affairs, to incorporate guaranteed tuition into UAccess Student for fall 2014. The Guaranteed Tuition Program was requested by President Ann Weaver Hart and approved by the Arizona Board of Regents April 2013. It provides undergraduate students with a constant tuition rate for eight continuous semesters.
ECAR STUDENT SURVEY 2013

Students who say they wish faculty would use more:

- course management systems 54%
- online forums 42%
- free course content 37%
- e-books 34%

D2L INTEGRATIONS

Third-party applications integrated into Desire2Learn:

- Panopto
- Respondus
- Courseload (pilot)
- Notebowl (pilot)
- Voicethread (pilot)
- Turning Tech upgrade

ONLINE LEARNING

FY14:

Number of Classes Using D2L: 7,000

Fall 2014:

- # unique fully online courses 676 +28%
- # unique students in fully online courses 11,368
- # unique hybrid courses (in-person and online) 244
- # unique students in hybrid courses 5,084
**CLASSROOM TECHNOLOGY UPGRADE (CTU) PROGRAM**

Progress was made in FY14 on all six projects in the Classroom Technology Upgrade Program (see box at right). New implementation included: an emergency warning systems chosen and installed in rooms across campus; Cisco’s telepresence solution implemented in a showpiece classroom for demonstrations, as well as 3 other rooms, and the Innovative Learning Project launched and actively awarding grants.

Ongoing projects continued, with classroom upgrades scheduled to pass the halfway mark by end of summer and several pedagogy-specific classrooms completed. Panopto lecture capture for online streaming grew quickly and made the move to campus servers.

**FY14 CTU PROGRESS**

- **Emergency Warning Systems:**
  - 116 classrooms outfitted

- **Standard Classroom Upgrades:**
  - 41 classrooms completed FY14
  - 112 classrooms completed total

- **Pedagogy-Specific Upgrades:**
  - 7 classrooms completed

- **Telepresence:**
  - 4 rooms outfitted
  - 2 faculty pilots to incorporate the technology into pedagogy

- **Lecture Capture:**
  - 150 classes using Panopto cloud July 2013
  - 264 classes using Panopto on premise June 2014
  - Panopto integrated into D2L

- **Innovative Learning Project:**
  - 7 sites visited
  - 4 catalyst grants approved
AID FOR ADVISING

Advisors and students now have new tools in UAccess Student Center to make coordinating with each other easier. For students at risk for academic probation, a contract now automatically populates in Student Services Center and Academic Advisement with specific information for the student about resources to improve academic performance.

Students can also now find their assigned advisor’s name in Student Center. And for those advisors who opt in, students can schedule an appointment with them from within Student Center. The scheduler, Wise Advise, is a tool developed by the College of Social and Behavioral Sciences and is now integrated into UAccess for campus-wide use.

STUDENT ENGAGEMENT TRACKING

Part of the UA Never Settle strategic plan is 100% engagement—taking the educational experience beyond the classroom. UITS partnered with the Honors College to design a pilot system that uses milestones to track student engagement. This will also be part of the larger drive to improve student retention.

UACCESS STUDENT UPGRADES

Several projects in FY14 enhanced UAccess Student. Most visible to students, capacity to ensure performance during priority registration was doubled with the addition of two high-powered application servers. Between 6:00 and 6:15 a.m. on April 21, there were over 14,000 registrations, 4,000 simultaneously. Metrics showed processing speed remained high, and the team monitored Facebook and Twitter for student messages about registration. Posts on social media had largely positive feedback about the registration process.

For the Orientation office’s needs in producing new students’ schedules during freshman Orientation, UITS fully integrated pre-scheduler into UAccess Student, making it configurable, dynamic, and more responsive to campus needs.

UITS also implemented universal cancellation into UAccess Student, automating the process. Now when a student cancels their admission to the UA with many of the central administrative offices, their record will be updated as canceled in all the departments’ records.
STUDENT COMPUTING LABS

150,362 total logins FY14
+24% over FY13

21,860 individual users FY14
+7% over FY13

53.8% of all students

GEAR-TO-GO CAMERAS AND MULTIMEDIA EQUIPMENT

5,113 checkouts FY14

OSCR LAB TECH REFRESHES

Over summer 2014, the Office of Student Computing Resources (OSCR) installed 149 Macintoshes in student labs: McClelland Park, Shantz, Engineering 318, Multimedia Learning Lab, and Multimedia Zone. All run both Apple OSX and Windows. OSCR also refreshed the Testing Center in the ILC with 120 Dell Inspiron laptops.

Funding permitting, OSCR refreshes computers on a three-year cycle. As old computers are replaced, those which still have some useful life are made available to campus departments for student use. This year OSCR worked closely with campus IT staff to redistribute computers to 17 different departments on campus.
ARIZONA 3.0 APP

ITS Web and Mobile Services Team launched a fully redesigned Arizona Mobile app that allows the addition of enhanced features and even greater functionality for students, faculty, and staff. Tours are newly available in mobile web and Android, and Android functionality now mirrors iOS and mobile web. The app is available for iOS and Android phones and tablets.

ARIZONA’S ECONOMY APP

The UA’s Mobile Matters team partnered with the Economic and Business Research Center at Eller to create an app for iPhone and Android users that provides up-to-date economic data for Arizona and the United States. The app launched in January, and includes data on unemployment rates, retail sales, building permits, personal income, and more. The design and Android development for the app included work by UA students.

MOBILE MATTERS III SYMPOSIUM

On October 21, 2013 Mobile Matters held a symposium in the Student Union showcasing innovation and UA-developed apps. Daniel Work, an assistant professor at the University of Illinois at Urbana-Champaign, gave an informative keynote on his innovative approach to collecting traffic pattern data with the TrafficTurk app, in order to develop traffic models for special events and natural disasters. Attendance was a 33% increase from the previous symposium, with a 100% increase in students and a 23% increase in faculty.
SUN CORRIDOR NETWORK

The three state universities in Arizona have built an Arizona high-speed network to directly connect state educational institutions. The new Sun Corridor Network is used by all three universities to connect to the national research and education network, rather than using California’s network, as before. The network was upgraded in Tucson from a 10 Gb per second connection to 100 Gbps, with Phoenix’s 100 Gbps upgrade coming soon.
NETWORK MPLS UPGRADE PROGRESS

The replacement of the campus network architecture with Multiprotocol Label Switching (MPLS) is 45.5% complete. Using the MPLS architecture allows the network to use the campus’s central security infrastructure and allows departments to be on a single network, rather than networks being defined building by building.

The new devices used for MPLS also enable building connectivity to be upgraded, and buildings get a 10Gb connection during the UITS installation of the new network architecture.

OLD MAIN RENOVATION

As Old Main underwent needed restoration work, UITS was there to replace the network cabling and telecomm room. Upgrades included new active network equipment, voice service to VOIP, and a new telepresence system for conferencing.

NEW UA CANCER CENTER VOICE/DATA

The Cancer Center’s voice and data network was dated—half the connections would not even support 1Gb. UITS funded and implemented a complete renovation, including over 400 new VOIP phones, UAWiFi, new telecomm rooms, and 30 network devices.
CELLULAR ANTENNA UPGRADES

Construction of the distributed antenna system (DAS) and the new equipment rooms in Arizona Stadium is complete. In addition to supporting better cell phone service in the stadium, the equipment rooms will also support future antenna additions on campus. The DAS Project is moving on to phases 2 and 3 to improve cell service on the rest of campus. Already radio frequency surveys have been conducted in residence halls and other buildings to establish service baselines.

WIRED NETWORK

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of wired network devices</td>
<td>2,042</td>
</tr>
<tr>
<td>Number of wired data ports</td>
<td>97,697</td>
</tr>
</tbody>
</table>

UNITY VOICEMAIL

UA employees are enjoying expanded features with a new voicemail system being rolled out on campus. The old campus voicemail system, Octel, is being replaced with Cisco’s Unity Connection. Benefits of the new system include improved synchronization with the UAConnect email system and a Web-based interface that allows users to check messages and change their preferences remotely.

By June 30, 2013, over half the campus voicemail boxes were moved. The target date for all campus voicemail boxes to be transitioned to Cisco’s Unity Connection is fall 2014.

WIRELESS COVERAGE COMPLETE

<table>
<thead>
<tr>
<th>Description</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Campus indoor coverage</td>
<td>100%</td>
</tr>
<tr>
<td>Campus outdoor coverage</td>
<td>100%</td>
</tr>
<tr>
<td>Typical month maximum daily connections</td>
<td>30K</td>
</tr>
<tr>
<td>Typical month average daily connections</td>
<td>15K</td>
</tr>
</tbody>
</table>
I.T. OPTIMIZATION

Campus IT representatives, including the chairs of the Dean’s Information Technology Council and Administration Technology Advisory Council, formed the IT Optimization Working Group to develop a plan to meet the following objectives:

- Streamline support and operations
- Create capacity
- Reduce costs
- Improve/expand support and services
- Build a cohesive IT community

The working group identified three key areas to consider optimizing for greater efficiencies:

- Server consolidation & virtualization, “in-a-box” services, and cloud services
- Campus wide email, calendaring, directory, content, and collaborative solutions
- Consolidate, integrate, and federate help desk and device management

While there would need to be investment in some systems to achieve future savings, the group projected overall net savings of **$28,766,719** in time and money by 2020. Both central and campus IT are now working on implementation.

VCAT PILOT UNDERWAY

To meet the expected demands for server virtualization for the campus optimization project, the UITS infrastructure services team has implemented an automated provisioning process using VMware’s vCloud Director Suite (vCAC). Branded vCat (Virtual Compute Automation Tool), the process improves the automation, agility, and build of new environments for campus constituents wanting to set up a virtual machine.

UITS VIRTUAL SERVER GROWTH

- **778** number of virtual servers owned and managed by UITS and located in the central data center
  - a **13%** increase
- **597** number of physical servers located in central data center(s)
  - a **19%** increase
**NETID+**

A employees and students now have the option to heighten the security of their NetID accounts. The new NetID+ is an opt-in feature which enables second-factor authentication services for all sites utilizing UA WebAuth or Shibboleth authentication services. When signing in with NetID+, users choose a device for a code to be sent; retrieve the code sent via push, SMS, or phone call; and enter it to complete the log-in. NetID+ service is provided by Duo Security, through InCommon's Net+.

**NEW INCOMMON SERVICES**

More services became integrated with the UA's identity management infrastructure this year. Federated trust relationships were established through Shibboleth/InCommon with:

- Faculty180
- Panopto
- EBI Map-Works
- PeopleAdmin
- Qualtrics
- ModoLabs
- Salesforce

This allows use of NetID and password with these services.

**IRONPORT SUMMARY**

Total clean messages 188.6 million

Total threat messages blocked 3.1 billion

% threat messages 94.3%

Incoming email processed by IronPort from implementation—November 8, 2013—through June 30, 2014.

**IRONPORT BLOCKING MORE SPAM IN CAMPUS EMAIL**

ITS and the Office of the CIO worked with IT professionals across campus to identify a solution for providing a secure email gateway. The Cisco IronPort was chosen for the variety of features it provides.

Spam blocking was implemented on November 8, resulting in an immediate reduction of spam, viruses, and phishing attempts in campus inboxes. IronPort blocks approximately 12 million to 15 million emails on a typical day.
UACCESS LEARNING UNDERWAY

From new employee orientation to UAccess training to research procedures, there is a wide variety of mandatory and optional training for University employees offered by units across campus. These trainings are moving into one location accessible to employees from the UAccess landing page, under UAccess Learning.

UITS partnered with Human Resources (HR) to implement UAccess Learning with PeopleSoft’s Enterprise Learning Management 9.2, which has been populated with 129 courses from UITS, HR, the Financial Services Office, and the Office for the Responsible Conduct of Research to test and pilot the system. These courses are available to the campus community as of September 2014, and more classes from additional departments will be added.

The system supports employees and supervisors by providing the ability to organize, schedule, and track trainings, certifications, and professional development in one place.
**UNIVERSITY BUSINESS EVENT TRACKING CALENDAR**

Keeping track of important holidays and business and academic events just became easier, thanks to a new online calendar that provides campus dates and business deadlines from eight different units in a single, convenient location. The UITS Web and Mobile Services Team worked with the units to create the central resource, which also allows members of the campus community to subscribe to calendars that will sync with their personal desktop or device calendars.

**REBRANDED ARIZONA.EDU LAUNCHED**

In spring 2014, in support of the UA website brand refresh by University Relations, the UITS infrastructure team built a new web server environment optimized to meet the needs of the new site.

The Web and Mobile Services Team supported the integration, testing, hosting, and successful launch of the new www.arizona.edu to meet the timeline of the nationwide advertising campaign around the new brand.

**UACCESS RESEARCH**

Kuali’s Institutional Review Board (IRB) module was implemented in UAccess Research to provide an electronic tracking system for the Human Subject Protection Program (HSPP). Now when researchers submit protocols, the HSPP can follow routing, reviewing, and approval status of the protocols within UAccess Research.

**UACCESS SPACE**

Real Estate Administration is using the Archibus space management system in UAccess Space to track building and room square footage, and departmental assigned space and usage. UAccess Space reports can provide number of people using a space, research grants used in lab space, and more.

**CREDIT CARD PROCESSING**

UITS Enterprise Applications Technical Services integrated a new outside vendor credit card processing capability into the UAccess Student system. The University contracted with a third-party vendor, Nelnet, to continue to make credit card payment available as an option for Bursar fees.
**24/7 EXPRESS SATELLITE LOCATION**

Fall 2013, the 24/7 IT Support Center launched 24/7 Express, a satellite location in the OSCR La Paz computer lab during the opening of the semester. 24/7 Express services were limited to common, quick and easy support requests to provide faster service on those issues and reduce the queue for clients with more complex requests. During the week before and first week of school, 24/7 Express provided service to 157 customers, which was 12% of the 24/7’s overall walk-in customer count. With this success, Express continues at semester starts.

**24/7 IT SUPPORT CENTER USAGE FY14**

<table>
<thead>
<tr>
<th>Service</th>
<th>Calls</th>
<th>Email/Online</th>
<th>Chat/Remote</th>
<th>Walk-Ins</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>UA WiFi setup</td>
<td>52K</td>
<td>6K</td>
<td></td>
<td></td>
<td>58K</td>
</tr>
<tr>
<td>Campus email setup</td>
<td>15K</td>
<td></td>
<td></td>
<td></td>
<td>40K</td>
</tr>
<tr>
<td>NetID password resets</td>
<td>12K</td>
<td></td>
<td></td>
<td></td>
<td>27K</td>
</tr>
</tbody>
</table>

**Total 84,944**

**24/7 EXPRESS SERVICES**

- UA WiFi setup
- Campus email setup
- NetID password resets
SECOND UACCESS SYMPOSIUM A HUGE SUCCESS

The first UAccess Symposium in 2013 exceeded expectations by drawing 130 attendees. The 2014 UAccess Symposium hosted 336! Fifteen UAccess experts from departments across campus gave 12 different presentations with information about the systems, best practices for efficiency, and capitalizing on the features and benefits UAccess and Analytics provide. Feedback from attendees was favorable, and the outlook for the 2015 Symposium is bright.

INFORMATION SECURITY OFFICE 2014

▶ Established central log collection and analysis tools, allowing more efficient identification, containment, and elimination of cyber threats
▶ Continued outreach, education and awareness campaigns to faculty, staff and students
▶ Established quarterly newsletter for faculty/staff featuring information security topics and highlighting UA security tools and resources.
NEW UNIT DESIGNED: OFFICE OF UNIVERSITY ANALYTICS AND INSTITUTIONAL RESEARCH (AIR)

The Office of the CIO worked closely with the Provost’s Office during FY2014 to create a new, unique unit combining business analytics and institutional research, elevated to report directly to the Provost. There, data and analytics will influence strategic planning efforts, policy analysis, and management decision-making. The new office, a merger of the existing Enterprise Information and Analytics (EIA) and Office of Institutional Research and Planning Support (OIRPS), launched July 1, 2014, with EIA director Hank Childers as the executive director.

EIA and OIRPS worked closely in partnership prior to their plans to merge, a model for other universities. While the CIO will no longer oversee EIA, the two offices will maintain strong relations to support the University’s ability to move forward on its vision and goals with data and analysis.
KUALI CONTRIBUTIONS

As part of UA’s collaboration with the Kuali Foundation, the UAccess financials team contributed modifications that were written during UAccess Financials implementation or to support ongoing business needs. Five of these contributions have been added to the baseline Kuali financials system (KFS) and will be included in the upcoming release. These include:

- enhanced trial balance report
- improved validation of object codes types from files coming in from other systems
- the creation of a new current account balances inquiry that shows the budget balance and cash available across different accounts
- improved the accuracy of Sponsored Project accounts budget balance available by adding calculation of indirect cost encumbrances
- enhancing salary expense transfers to facilitate collecting information required by granting agencies

The UA has been an active participant in the Kuali Foundation’s consortium of universities, writing open source code and contributing bug fixes and enhancements since the beginning of the UA’s Mosaic enterprise replacement project.

UACCESS ACCESS AUDIT

East (the Enterprise Applications Security Team) was tasked with a Financial Audit remediation. All UAccess roles and users are required by the UA Information Security Office to be reviewed once every three years. EAST began with a review of roles and access to the UAccess Employee system. Thanks to participation from the campus Data Stewards and 189 Access Provisioning Liaisons, every active user’s access was reviewed. EAST will next review access to the other UAccess systems.

UACCESS EMPLOYEE COMPREHENSIVE REVIEW

174 Roles reviewed by Data Stewards for Scope of Access
189 Access Provisioning Liaisons (APLS) reviewed Distribution of Access (who has what role)
4,091 Users reviewed
15,537 User Roles reviewed
100% participation in the process by APLs and Data Stewards
More than 400 information technology employees from across campus came together at the first UA IT Summit. The goal of the conference was to bring IT professionals together to connect, exchange ideas, keep each other informed about ongoing projects, and discuss current and future challenges as well as share best practices.

With participation from University of Arizona President Ann Weaver Hart, UA Chief Information Officer Michele Norin, world-renowned keynote speaker Dr. Allan Hamilton, informative breakout sessions, and an interactive poster session, the event set a foundation for what will be an annual event.

**FIRST ANNUAL UA IT SUMMIT**

**WWT BIG DATA CAMPUS PRESENTATION**

Big Data architects Prem Jain and Art Hansen from World Wide Technology, Inc. visited campus for a presentation on big data hosted by the Office of the CIO. They first provided an overview of where they see big data heading, then offered solutions big data can provide for issues that higher ed is grappling with, and finally demonstrated use cases of big data projects from their wide experience in commercial and educational settings.
**SDN WORKSHOP**

Co-sponsored by the Chief Information Officers of the University of Arizona and the University of New Mexico, the Software Defined Networks (SDN) - Research and Industry workshop brought together SDN practitioners from disciplines across academia and industry to exchange ideas, present new approaches, and openly discuss challenges and opportunities. The focus of discussion was on public and private research of software defined networks and how universities consider deployment to impact data-intensive, security, healthcare, and pre-production campus networks. Topics included campus and regional production networks, SDN and cyberinfrastructure, and optical and wireless SDN platforms.

**WOMEN IN TECHNOLOGY CAREERS EVENT**

On October 29th, women leaders in technology fields and UA undergraduate and graduate women assembled on campus for the first Women in Technology Careers event. The event, co-hosted by UA Chief Information Officer Michele Norin and software company NetApp, was designed to encourage students to pursue careers in technical fields. Panelists from IBM, Adobe, Cisco, NetApp, General Motors, and UA Telemedicine discussed issues, challenges, opportunities, and ideas for women in the current technology workplace. Additional career women also provided one-on-one discussion opportunities. Colleges, schools, campus programs, and ASUA clubs attended to give the more than 100 registrants information about tech degrees and activities available at the UA.
IT SUMMIT 2014
Bringing campus IT professionals together again

STUDENT WIRELESS
Residence halls wireless upgrade to meet the usage demand of today’s students

WEPA PRINTER EXPANSION
Expansion of Wireless Everywhere Print Anywhere cloud printing service to all OSCR locations, the UA Libraries, and additional locations around campus

STUDENT PORTAL
A one-stop web portal to connect students to all their online University information

TELEPRESENCE
Videoconferencing capabilities for campus

CLIENT CERTIFICATES
A means to sign or encrypt email and documents to ensure authenticity

BOX
A cloud storage system for faculty and staff

SHAREPOINT
Collaboration and management system.

DOCUWARE
Implementing an electronic document management system

KUALI 5 UPGRADE
Adding new features to UAccess Research.

HCM 9.2 UPGRADE
Making UAccess Employee more friendly to navigation.

UACCESS AVAILABILITY
Reducing the downtime of UAccess during processing to provide greater availability.

LOOKING FORWARD 2014–15

Office of the CIO
(520) 621-2300

Computer Center
1077 N. Highland Ave., Room 201
PO Box 210073
Tucson, Arizona 85721-0073
cio.arizona.edu