WEBER STATE
UNIVERSITY

INFORMATION TECHNOLOGY

ANNUAL REPORT
FY 2016

"We make it possible for people to do the right thing"

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We are pleased to present the annual report for the Information Technology Division for the 2015-2016 academic year. This year has been a year of refinement and realignment. This report highlights a number of the important, high-impact projects completed this year.

The main projects for this fiscal year took a more focused approach to affect a high degree of impact in key areas. In addition to the hundreds of projects the IT Division has completed, the Division still maintained an excellent operating environment.

The increased demand for projects has greatly outpaced historical and current funding. The Division continues to operate at about 80% staff capacity. We have been unable to fill several key positions due to an inability to compete with industry salaries. With current staffing, the Division has been impeded in its ability to meet present and future demands.

What may not be readily gather from these pages of this report is the hard work and dedication of the 65+ IT staff that made all of this possible. They are at the heart of the Division and it is their passionate commitment that makes our successes possible.

Dr. Bret Ellis

Vice President of Information Technology

When prioritizing the hundreds of projects the come to the Division throughout the year, it is critical to understand the the lasting impact the projects have on student success. Since President Wight's inaugural address, and other university discussions, we have extrapolated language to focus how the Division helps the University with critical initiatives. Below are the six categories created and a brief explanation of each.

Recruit – Provide easy to use, efficient and accessible services that help attract and engage a diverse student body.

Reduce – Streamline processes, and increase efficiencies to make education more affordable for students.

Retain – Provide timely data and services that identify students at risk.

Relate – Provide services that empower involvement with the community.

Result – Provide accurate and timely data to enable students to graduate on schedule.

Ready - Provide tools and support to students and faculty to ensure students are prepared and ready for the workplace.
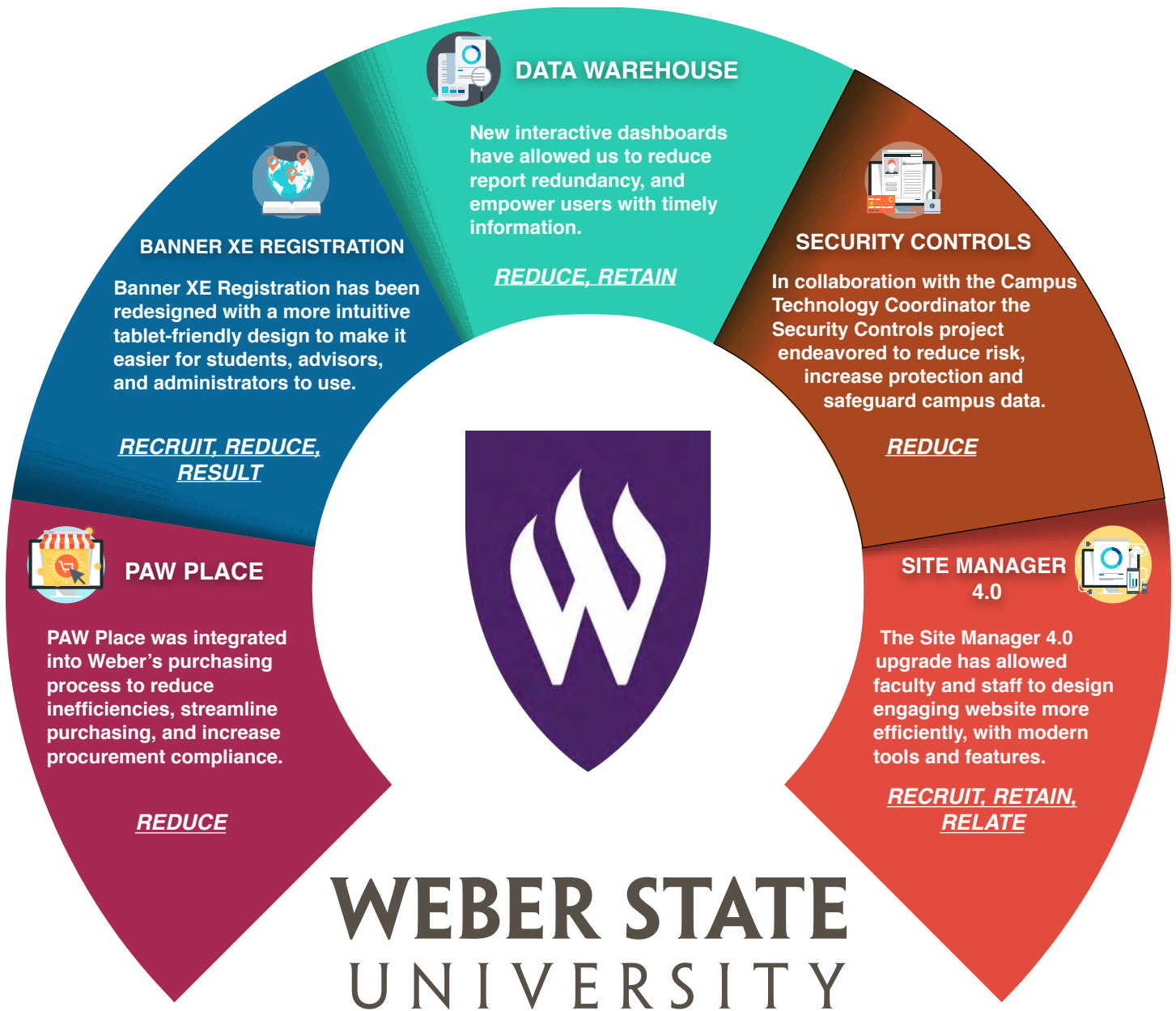
These values will guide in prioritization of upcoming IT projects and services.
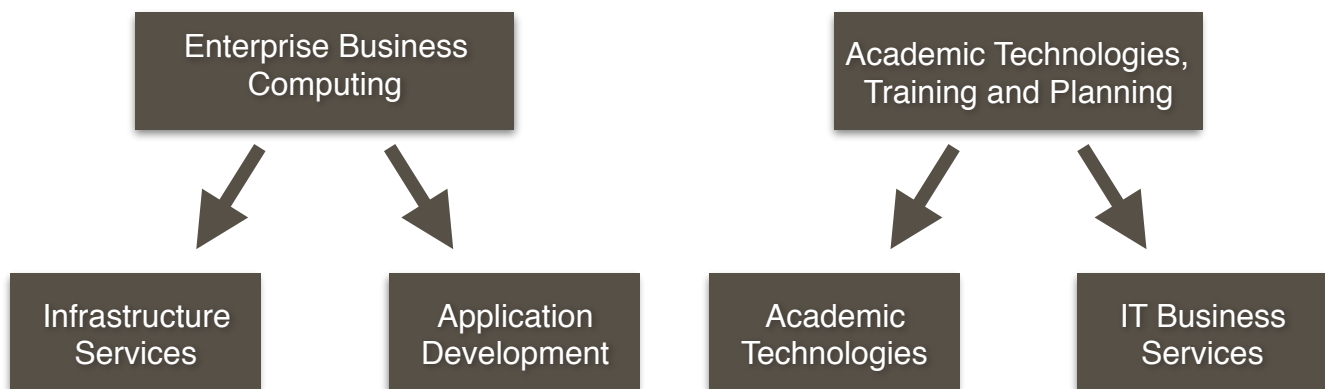
Building on Success

As the fiscal year is being wrapped up and we've gathered all of the projects that the IT Division has accomplished this year, it appears that this year, for us, is one of continuing to make impactful improvements in those areas most important to the university. Though hundreds of named projects were completed, five stand out as examples of how the IT Division is directly assisting in moving the important work of Weber State University forward.

DATA WAREHOUSE

New interactive dashboards have allowed us to reduce report redundancy, and empower users with timely information.

REDUCE, RETAIN

BANNER XE REGISTRATION

Banner XE Registration has been redesigned with a more intuitive tablet-friendly design to make it easier for students, advisors, and administrators to use.

RECRUIT, REDUCE, RESULT

SECURITY CONTROLS

In collaboration with the Campus Technology Coordinator the Security Controls project endeavored to reduce risk, increase protection and safeguard campus data.

REDUCE

PAW PLACE

PAW Place was integrated into Weber's purchasing process to reduce inefficiencies, streamline purchasing, and increase procurement compliance.

REDUCE

SITE MANAGER 4.0

The Site Manager 4.0 upgrade has allowed faculty and staff to design engaging website more efficiently, with modern tools and features.

RECRUIT, RETAIN, RELATE

WEBER STATE
UNIVERSITY

Nearly six years ago the Division was reorganized to better support University planning initiatives and the Division's strategic plan, also know as Core Themes.

This year, after an unsuccessful search for a Director for Application Development and Infrastructure Services, two internal managers were advanced into positions; titled Director of Application Development and Director for Infrastructure Services.   Peter Waite and Mark Green now are associates with Shelly Belflower; Director of Academic Technology Services and Director (Acting) of Business Services.

Enterprise Business Computing		Academic Technologies, Training and Planning	
Infrastructure Services	Application Development	Academic Technologies	IT Business Services

Additionally, after a hiatus of a few years, the IT governance is being re-established with a group called Information Technology Governance, Compliance and Risk Council (ITGC). This group will again have responsibility for helping to establish the strategic plan for the next three years, for oversight of the portfolio, product and project management, and reviewing the risk and compliance assessment process, planning and execution.

IT INFRASTRUCTURE SERVICES

Mark Green
Associate Director of
Infrastructure Services

Allison Knowlton
Manager
IT Support Services

Jonathan Karras
Manager
Network & Comm Services

Mark Buxton
Manager
System Services

Mark Green
Manager
Database Services

Infrastructure Services is comprised of four teams; System Administration, Networking & Communications, Database Administration and Support Operations. Our main focus is to implement and support the IT solutions that the university has selected to support its faculty, staff, and students.

The System Administration team provides reliable computer systems to run the university's administrative applications. The Network & Communications team provided reliable and stable networks and telephone systems so that our customers can connect to their needed applications and the internet. The Database Administration team provides secure, dependable databases to house the university's mission critical data. The Support Operation team is the front line contact for our customers to help resolve application problems and help with any technical issues they run into with the technology that they are using.

These four teams work very closely together to provide a stable and secure computer infrastructure so that our customers are able to be more successful and productive at their jobs and to make sure that they have the support with quick resolutions to problems that arise.

DATA WAREHOUSE

Data is more than a snapshot. It is an institutional resource that powers innovation and guides Weber State toward new levels of insight. The data warehouse project is empowering the culture of analytics that will shape the way the University does business. Among its many initiatives, the data warehouse will create a consolidated and accessible view of Weber States data to guide the organization forward.

TARGETED CUSTOMER/GROUP: WSU ADMINISTRATION, STAFF, FACULTY

"WSU's data warehouse has allowed users unprecedented opportunities to create dashboards via Argos and Tableau-- providing essential data/ information to make important business decisions directly benefiting our students. Moreover, in the future, I anticipate key information will be captured and stored in the data warehouse that will allow us to identify, intervene, track, and assess our effectiveness in helping "at- risk" students."

Bruce Bowen, Associate Provost for Enrollment Services

Strategic Objectives Addressed:

1. Reduce
2. Retain

Background

In the late 1990's the benefits of consolidated data and data analysis prompted substantial efforts towards building a data warehouse. However it would be almost two decades later that our solution would take shape. Although resources were limited, IT and administrative staff continued to press forward with efforts in a period of growth as we learned and implemented many important procedures that prepared us for today.

Solution

Two years ago the pieces came together. The hard work of committees such as the General Person Team, Data Governance, IT Portfolio Management, and Institutional Effectiveness formed a framework for developing and implementing new procedures. The decision makers and general University culture was also ready to adopt and progress into data driven decision making. The final piece, Wherescape Red software, was purchased through due diligence with the promise of enabling IT staff to do a lot with a little. True to it's word, with only limited staff resources, in a short year the initial phase of the data warehouse was complete.

Results

Weber State's Data Warehouse is functioning with 10 fact tables and over a dozen supporting dimensions. We are able to answer questions that we never have before. We regularly hear comments such as, "I always wished I could get that information." People's eyes light up as the catch the vision. Now we have more request for new data than we can keep up with. The warehouse is growing, as is the adoption of new approaches to solving problems, helping the University meet its goals.

IT Infrastructure Accomplishments
(IT Support)

Project Title	What and Why	Customers	Impact
Service Desk Incidents Handled	The IT Service Desk handled over 15,000 incidents this year.	Faculty, Staff, Students, WSU community	The IT Service Desk acted as a single point of contact to assist the campus community with technical issues, challenges, and questions.
Migration to Box (IN PROGRESS)	CTC board asked us to migrate as much data as possible from current fileshares into the Box cloud.	Faculty and staff	WSU saves finances by minimizing the amount of data in our data center.
SCEP Compliance	President asked us to have SCEP running on every WSU computer to protect campus machines from infections.	Faculty and staff	University data is more protected and secured.
Identity Finder Compliance	President asked us to have IDF installed and used on every WSU computer to identify unneeded PII.	Faculty and staff	Unnecessary PII is removed reducing the risk of it being maliciously obtained.
New AAC Building Project	New building constructed, we assisted moving employees and technology into building.	Athletics academic advisors and student athletes	Student athletes have a new environment to seek academic counseling, use a computer lab, and complete study hall hours.
MA Building Renovation Project	MA renovated, we assisted moving employees and technology to temporary offices in WI and then helped move them back once renovation was finished.	MA staff	MA building has improved network and facility infrastructure.
Imaging Upgrades (IN PROGRESS)	AppXtender and Kofax imaging servers were upgraded, we helped contact hundreds of Xtender users to upgrade clients.	Faculty and staff	Imaging server and clients are updated and more stable.

IT Infrastructure Accomplishments
(Network and Telecom)

Project Title	Customers
Station Park network design and implementation	WSU Community
D13 network design and implementation	WSU Community
Stadium House (formerly AAC) network design and implementation.	WSU Community
Davis 2: 10GigE uplink upgrade	WSU Community
10GigE building core upgrade in buildings that support 10GigE uplink.	WSU Community
TE Data Center 10-gig switching upgrade	WSU Community
Elizabeth Hall building router upgrade	WSU Community
Dee Event Center building router upgrade	WSU Community
New fiber backbone from Dee Center to University Village	WSU Community
TE building router upgrade	WSU Community
Setup networking for Dixie College and SUU at the USHE Downtown Data Center	WSU Community
Installed 94 new IP cameras	WSU Community
Installed 18 new digital signs	WSU Community
Served on multiple RFP committees (IPTV, video surveillance, Asset Inventory Tracking)	WSU Community
Upgraded 120 APs from 802.11a/b/g to 802.11ac as part of R&R	WSU Community
Outdoor wireless expansion project (ongoing)	WSU Community
Temporary wireless link to support soccer game broadcasts	WSU Community
Tracy Hall network design and implementation	WSU Community
Dee Center phone switch upgrade.	WSU Community
UV phone switch upgrade.	WSU Community
Removal of obsolete Maintenance Cabinet from CS switch room.	WSU Community
Decommission of obsolete Library Port Network. (EPN 5)	WSU Community
Decommission of obsolete Administration Bldg Port Network. (EPN 6)	WSU Community
Converted Dee Events Center to IP telephones.	WSU Community
Converted Administration Building to IP telephones.	WSU Community
Telecom Sustainability committee	WSU Community
Station Park network design and implementation	WSU Community

IT Infrastructure Accomplishments
(Systems)

Project Title	What and Why	Customers
Getting rid of old hardware ie 9985, 3510, 3511, XRAID, SUN Blades, network cables, fiber cables....	Retiring/Replacing old equipment	WSU community
Migrated services on legacy Windows Server 2003 to supported operating systems	Upgraded the Windows Servers	WSU community
Migrated off of Whatups and shut down services.	Retired Whatups	Monitoring personnel
Cleaned up a lot of old web sites on Frontpage servers		WSU community
Push to use Box and Google Drive		WSU community
Replaced Citrix Hardware		
Dockerize Banner Frontends		
Icinga2 (improve monitoring)		Monitoring personnel
Logstash Central Logging		
Improved CAS reliability		WSU community
Duo Implementation		WSU community
Completed cloud storage proof-of-concepts for backup options		

IT Infrastructure Accomplishments
(Database)

Project Title	What and Why	Customers	Impact
Imaging Upgrade	Imaging/Xtender was upgraded from 6.5 to 7.	387 People in various departments all over campus	We were able to upgrade the application so we could stay in compliance and current with supported versions.
Imaging Server Migration	The Server was also upgraded from windows 2008 to 2012 R2	Departments all over campus	We were able to upgrade to a new Server.
Data Cookbook	I currently have basic entries for over 700 Data Warehouse fields. More are being added all the time. This is a huge process that involves Information Management/vetting meetings, Data Cookbook Student and General Person team meetings, making corrections and updates, tracking term progress, etc.	All data users, datablock designers, and report writers at WSU.	This will help data users and datablock/ report writers know what data is out there and what it means.
Clean-up templates on Argos reports	Placed template on nearly all Argos reports in "Student - Campus Access" folder. We are using this to get feedback from the report users (for example, how often they use the report and if they wish to see any changes). This will help us eliminate duplicate reports.	Users of datablocks (they can share their opinion and ask for more features) and the builders of datablocks (we can tailor a datablock specifically to end user's needs and clean up duplicate reports in Argos).	If we can manage to get good feedback, we will be able to create more meaningful data reports, and we will also be able to de-clutter Argos so there are not so many datablocks to search through to get the information you need.
Remodel MA 211K (started)	I am helping manage the room remodel process for MA 211K. We are updating the room with technology that will make it easier for people to collaborate (SmartBoard, computer, etc).	All users of conference rooms in MA building. (Mostly Provost office, IT, HR, Financial Services, Student Affairs, Internal Audit, Legal, and AA/EE.)	Right now, the room only has a table and a whiteboard. The SmartBoard, computer, and laptop/power plug-ins will help those that meet there share their ideas with each other.
Trained users in Argos and Data Cookbook to help them get the data they need	I have become the contact person in helping report users when they get stuck in Argos. I often help people use the Program of Study and International dashboards either on the phone or in their offices one-on-one. I have also taught several classroom-style training sessions on how to use the Data Cookbook.	Report users	Hopefully after I train them in how to use a datablock, they are able to feel more confident about retrieving the data they need.
Data Warehouse	Began using the Data Warehouse in production in response to requests from president's council and other to be able to more effectively make data driven decisions.	Administrative and executive staff	To facilitate effective historical, and more accurate and effective reporting
Lenel Upgrade to v7	Upgrading Lenel to v7 from v6 to stay compliant with current software and to meet the expanding demand on the electronic lock system	FM Lock Shop and all campus	Continued reliable 24/7 access to all electronically secured campus buildings
Database Security	Continual maintenance of database security patches	WSU community	Maintain security of database systems to protect personal information
Meeting Division goal	Provided ongoing, consistent, and reliable support of critical data systems including electronic locks, user account provisioning, timely and reliable access to registration, graduation, admissions, testing, advancement services, and other critical services,	WSU community	"Making it possible for people to do the right thing." (WSU IT Division 2015 "Why")
Banner Upgrades and Patches	There were 56 major Banner upgrades and 32 patches applied to the ERP system.	All Banner users	Keeping it up-to-date and in compliance.
Approx 150 SQL Server production moves.			

IT Infrastructure Accomplishments
(Database)

Project Title	Customers
AIM IQ upgrades	WSU community
Data warehouse development (QL, CL, Transcripts, Transfer courses, User and role provisioning, etc…)	WSU community
Database improvements (Bloack change tracking, ASM)	WSU community
XML DB, Web Services setup	WSU community
12c Database upgrades	WSU community
Planned and conducted multiple data warehouse trainings	WSU community
CE database cleanup	WSU community
SCCM upgrades	WSU community
Citrix DB Setup	WSU community
HDMDB upgrades	WSU community
Radius Setup for data warehouse security	WSU community
WICHE Data/Report	WSU community

IT ACADEMIC TECHNOLOGY SERVICES

Shelly Belflower
Director of
Academic Technology Services

Alan Ferrin
Manager
Creative Academic
Technology Solutions

Matt Cain
Manager
Classroom Technology
Services

Jeremy Harvey
Manager
Academic Web
Services

IT Academic Technology Services focuses on providing effective technology services to enhance and support academic learning.

Each ATS team focuses on the area of their expertise. The Classroom Technology Services team provides reliable technology and classroom support; the Creative Academic Technology Solutions team provides media to enhance classroom instruction as well as broader media coverage; and the Academic Web Services team designs and provides frameworks for academic content in support of academic departments, programs and events.

We look for opportunities to design, promote and support the University in academic technology endeavors. We provide software and solutions that match needs with successful outcomes.

INTRO TO MICROBIOLOGY

Dr. Oberg was looking to enhance his online course with something beyond Powerpoint and PDF. After producing the MOOC with Gene Sessions and the CATS team he knew that video would be the ideal media solution for this project. The challenge was that this would be more difficult than something he could produce himself with the DIY studio.

TARGETED CUSTOMER/GROUP: WSU FACULTY

"It has been an extraordinary experience working with Alan, Jim, Joe, and the rest of the IT folks the past couple of years. I would never have envisioned what was possible in making videos to enhance both my online courses and the MOOC without their guidance and suggestions. Working this past year, and for the last few years, with these folks in IT has been one of the most productive experiences I have had with educational support services."

Dr Craig Oberg, *Chair of Faculty Senate*

Background

Microbiology is a subject that has many difficult concepts that are often better explained visually than verbally. With such a complex subject it can be difficult to visualize the effects of a virus, or a parasite, or a bacteria in its environment. The goal of CATS was to help bring this subject to life and make these concepts unforgettable for Dr. Oberg's students.

Solution

CATS developed a system to efficiently shoot, edit, and output videos that illustrate concepts like viral transmission, DNA and RNA replication, and current epidemic and pandemic risks. Using photography and graphics that are available under creative commons licensing we are able to use real-world imagery to help students see the effects of microorganisms in the world.

Results

The level of student engagement goes up dramatically when multimedia with high production value is included in the course. CATS is proud to have collaborated with Dr. Oberg to produce this high quality content—through this process we have refined a effective workflow that will empower us to provide more services to faculty in the future.

Academic Tech Accomplishments
(Creative Academic Technology Solutions)

Project Title	What and Why	Customers	Impact
Science Lab Building video	Produced a video which was used to make the case to the state why we need extensive renovations to the Social Science Building. (The project was given the green light by the Legislature & received a large private donation)	WSU Faculty and Staff	"The CATS team plays a valuable role in our public relations and advocacy efforts. As we have sought legislative funding for building projects, they have collaborated on building the case for renovating the Social Science Building and replacing the Science Lab Building with effective videos that visually capture the essence of why we need new projects. I know our staff in Marketing & Communications appreciates the responsiveness, skilled photography and editing capabilities, and collaborative nature that the CATS team has brought to these projects and we look forward to future collaborations." **- Brad Mortensen,** Vice President for University Advancement
Intro to Microbiology videos	Produced a series of lectures with images and graphics for Dr Craig Oberg's course.	WSU Faculty	"It has been an extraordinary experience working with Alan, Jim, Joe, and the rest of the IT folks the past couple of years. I would never have envisioned what was possible in making videos to enhance both my online courses and the MOOC without their guidance and suggestions. They have been extremely accommodating to my schedule and the production of their products has been timely. In relation to the quality of the products (videos), it has been dramatic for me to view the final products. I have made my colleagues both on campus and at other institutions watch them, and they too are amazed at the quality and technical polish. Working this past year, and for the last few years, with these folks in IT has been one of the most productive experiences I have had with educational support services." **- Dr Craig Oberg**, Chair of Faculty Senate
Campus Aerial Videography b-roll	CATS has compiled a stock library of aerial video footage on campus which has been used extensively for media projects across campus, the state, and nation.	WSU Faculty and Staff	"Just a note to tell you how much use we've received from the aerial drone footage your team supplied. Since I received the easy-to-access link, I have shared the shots widely. This spring the shots have been used in a Rocky Mountain Power TV commercial airing regularly on local TV. They were used extensively in the 60-minute historical video created for the 125 Campaign Celebration close. They were also used in the graduation video for spring 2016. Each of those projects was produced by a different agency, but each one found them very beautiful and useful. **- Allison Hess**, WSU Public Information Officer
Photography Solutions	The CATS team began promoting photography solutions on campus to improve the WSU image and enhance the educational experience of our students. Last year we took 10899 photos - at the back-to-school breakfast alone we took over 300 portraits.	WSU Faculty and Staff	"Thank you so much Joe! Having these professional photos make our staff webpages look so much more professional!" **- Danielle McKean**, Supervisor of Web Development & Digital Media, Student Affairs Technology

Academic Tech Accomplishments
(Classroom Technology)

Project Title	What and Why	Customers	Impact
Logistics at Lampros Hall	The CTS department has not had its own space since its creation. With the help of building and one time money a space was converted into a home for the technicians. This gave them a central place that they could work from and collaborate on projects that support campus classrooms.	Departments all over campus	Moving to a new location has helped us to be closer to rooms we support and has helped us to organize the team better. This in turn has helped us to improve our support of classrooms across campus.
3 Conference Room Setups at Davis	3 rooms at Davis had teleconferencing technology installed. This expansion allows students and teachers to expand the reach of the classroom(s). One of the rooms was a conference room next to the office of the Vice President of Davis Campus which is in the heart of D2. These additions were done at the VPs request.	WSU Davis faculty and staff	These rooms will save time for WSU faculty and staff, reducing the need for travel between campuses. This has environmental impact as well increasing productivity.
Security Controls Implementation	Matt Cain was tasked with identifying a way to determine what machines on campus have the university standard Anti-virus software and also Identity Finder. It also included identifying a way to determine which machines had filed for security exceptions and which machines were required to actually have Identity Finder. Matt was able to determine a way to query all of the systems that reported through SCCM and was able to generate a report that was used to help CTCs across campus to find which machines needed to have their systems analyzed or find out why they were not reporting and which machines needed to be fixed. Once the report was generated the department used it to reach the 90%+ compliance for Davis Campus, College of Science and the entire ATS department.	WSU Employees	This provided a way for all CTCs to have a better look at the security in their areas. It allowed the university as a whole to move forward in a direction to become more aware of its own data security. It also helped to motivate CTCs to cleanup records in Active Directory helping to provide a more accurate look at how many computer systems exist on campus then ever before.
Tracy Hall Technology Setup	Tracy Hall will be expanding the number of classrooms and labs it has and that have technology in them. The new building will included 43 technology enhanced classroom and labs that Classroom Technology Services will help to support. The design and implementation of this large a number of rooms is a massive undertaking. It more than doubles the number of technlogy enhanced classrooms we supported beforehand. All classrooms are setup with new standardized equipment that is leading edge for classroom AV. Rooms include Interactive Projectors, Touch Panel for control, network control of AV Systems, Standardized tranmission of AV Signal using new HDBaseT Technology.	WSU College of Science Faculty, Staff and Students, temporarily relocated Library staff, WSU Community (secondary)	This new building setup sets a standard for how AV systems in new buildings or remodels should be done. This project has given our young staff a chance to develop key skills and to identify new areas we can redesign. Students will benefit from having technology allowing them to get a greater image quality. The technology is setup in such a way that it will enhance learning instead of deterring from it. An example is that the projectors selected have been chosen because of their extended life span (20,000+ hours) while also meeting the demands of providing a bright enough image to meet the challenge created by the vast amounts of natural light in the building design.
NUAMES Move and Expansion	With the purchase of the Northrop Grumman building and its remodel, technology needed to be installed and setup so for the classrooms. This also created a more permanent space than the portables students had been using. A technology plan was designed and implemented and the classrooms were setup. The technology from the portables was moved and now WSU and NUAMES staff have a more permanent home for these classes.	WSU Davis students, Nuames Administration, faculty and students	This project expanded the space that NUAMES was able to work from helping to give them a space that was more their own. This made it possible to remove the portables and created a more permanent feel to the campus. It also helped to expand the number of students that NUAMES could enroll.

Academic Tech Accomplishments
(Academic Web)

Project Title	What and Why	Customers	Impact
Sociology & Anthropology Department Website	The Sociology & Anthropology website had an outdated design and informational content was incorrect and inaccurate.	Faculty, Staff and current & prospective students.	We were able to publish a completely new website. Content was rewritten and refreshed. www.weber.edu/socanthro
Nursing Department Website	The Nursing Department website was outdated and needed a complete overhaul of content, images, design and navigation.	Faculty, Staff and current & prospective students.	All content was reorganized and rewritten with a focus on current and prospective students.www.weber.edu/Nursing
Weber State GoReact Website	GoReact is a tool used for online video feedback which is used to improve teaching skills.	Faculty and Staff	The page is now up to date with current information and is fully responsive to mobile devices. weber.edu/goreact
Diversity Office Website	The Diversity Office website was in need of reorganization, content updates, image updates and a more consistent navigation.	Faculty, Staff and current & prospective students.	We helped the Diversity Office redesign their website from the ground up. We also optimized the site to be more responsive to mobile devices. www.weber.edu/diversityoffice
Teacher Education Website	The Teacher Education website was in need of reorganization, content updates, image updates and a more consistent navigation.	Faculty, Staff and current & prospective students.	All content was reorganized and rewritten with a focus on current and prospective students. www.weber.edu/teachered
Virtual Labs	We installed the latest version of the 3M Hospital software which includes all the needed changes for the Affordable Care Act so our students can train for jobs in the healthcare industry. We also installed new tax software for business students preparing for jobs in the tax industry.	Faculty, Staff and Students	Virtual Labs allow us to host the latest versions of expensive software to train and prepare students in their chosen careers that the they wouldn't be able to afford otherwise. http://weber.edu/virtuallab
Storytelling Festival Website	The Storytelling website was housed a Weber State server. It was outdated, not mobile device responsive and links throughout the site were broken.	Faculty, Staff, Students and Community	We created a Site Manager website and redesigned the website from the ground up with all new informational content, images and a modern design that is fully responsive to mobile devices. www.weber.edu/storytelling
Teaching & Learning Forum Website	The website had duplicated navigation throughout the entire site. The same links were in the top navigation and the left hand navigation. There was no consistent design throughout the site and it was hard to find anything.	Faculty and Staff	We overhauled the site with new images, a modern design and made it fully responsive to mobile devices. www.weber.edu/tlf
Dr. Wutz Faculty Website	Dr. Wutz has created several new courses that we have added to his website for teaching on the Ogden Campus and also for his international course at Renmin University of China.	Faculty and Students	We have helped Dr. Wutz implement new course information on his website in order to enhance student learning in these courses. faculty.weber.edu/mwutz

IT BUSINESS SERVICES

Shelly Belflower
(Interim) Director of
IT Business Services

Heidi Munk
Directed Projects

Ty Naylor
Manager
Marketing and
Training

Jared Van Orden
IT Finance and
Office Manager

Vacant
Project and Portfolio

Vacant
Policy and Planning

The IT Business Services department focuses on communicating strategic information and planning through products, policy, training and events to our Weber State community constituents.

Our vision includes 1) ensuring customers are aware of how to request IT services, 2) providing the conduit for customer feedback to help enact improvement on products and services, 3) ensuring every employee receives the training they need or access to training, and 4) ensuring employees know and understand the policies and procedures for using technology. We provide financial overview and solutions for IT projects.
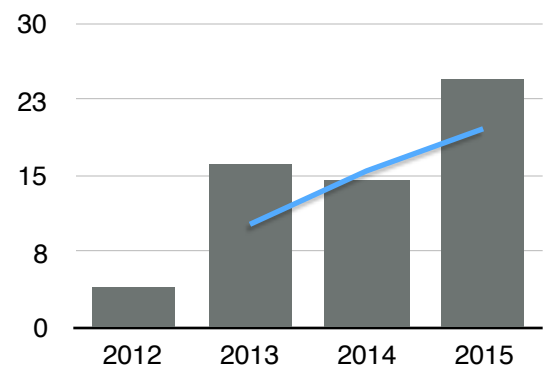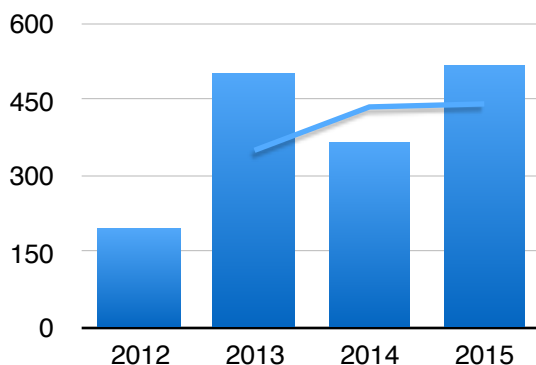
Wildcat Tech Expo by the Numbers.

WILDCAT
TECHEXPO

# of Expo Attendees

	2012	2013	2014	2015

600
450
300
150
0

Average Per Class

	2012	2013	2014	2015

30
23
15
8
0

IT Business Accomplishments

Project Title	What and Why	Customers	Impact
Wildcat Tech Expo	The Wildcat Tech Expo is a huge technology fair that the IT Division in partnership with the campus store hosts every year. World renown companies come to show off their products and services.	WSU Students, Faculty and Staff	Thousands of students, faculty and staff participate in the annual Expo. Classes area taught by vendor experts to develop skills on popular market software from Microsoft, Adobe, and Apple.
IT Leadership Retreats	In an effort to provide talent development in the IT Division, we have continued to provide leadership opportunities and training to identified high potential employees. In order for the Division to meet the future demand of the University it is critical to develop future leaders from our existing pool of employees.	IT Division Members	The Bi-annual meeting was attended by 20+ current and possible future leaders of the IT Division.
Career Ladders	Career ladders is the IT Division's talent development system. The Division has defined several job families, key skills and competencies to provide employees with direction, tangible goals., and a clear path for improvement.	IT Division Members	With the implementation of career paths we expect that morale will increase and we will have better staff retention. Our goal is that every employee will know not only current expectations but future expectations.
IT Trainings	Provided campus employees and staff over 30 facilitated IT classes in a variety of productivity and creative software packages.	WSU Faculty and Staff	Increased visibility of IT training and to market the Division's desire to help with university software training needs. Employees across campus gain exposure to software functions which then can be implemented to meet specific needs.
JIT Training	To provide a brief overview of software features and functionalities.	WSU Faculty and Staff	Allows immediate and 24/7 access and exposure to various software catalog functions. Coming Soon!
Adobe Connect	Adobe Connect provides a close mimic of a facilitated classroom experience easily provided online.	WSU Faculty and Staff	Allows instructors to provide non-local students with an online experience very similar to a traditional facilitated classroom.

IT APPLICATION DEV SERVICES

Peter Waite
Associate Director of
Application Dev Services

Denise Taylor
Manager
Student Application
Dev Services

Ron Jensen
Manager
Admin Application Dev
Services

Peter Waite
Manager
Web Application Dev
Services

Application Development Services' primary focus is providing the best possible digital experience and application access for students, faculty, staff and the community.

Application Development Services is comprised of three teams: Administrative Development, Student Development and Web Development. Administrative Development provides support for Banner's administrative applications and develops custom applications for partners in Human Resources, Payroll, Facilities Management, Finance, Accounts Receivable and others. Student Development supports many student systems, including Banner, and develops applications for partners in Admissions, Registration, Advising and Continuing Education. Web Development provides development and support the university eWeber portal, management of the Weber.edu web site, such as Site Manager, and campus support for mobile apps.

Each of these teams work together on projects to rapidly meet the needs of campus partners, while maintaining functional expertise on systems and applications in their respective areas.

```
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN" "http://www/TR
<html xmlns="http://www/1999/xhtml" xml:lang="en">
 <head>
  <title>.com - /Title</title>
  <meta http-equiv="imagetoolbar" content="no" />
  <meta name="robots" content="noarchive" />
  <meta name="robots" content="nocache" />
  <meta name="robots" content="noimageindex,nomediaindex" />
  <meta name="robots" content="noimageindex" />

  <meta property="og:title" content="web" />
  <meta property="og:type" content="website" />
```

WEBER STATE UNIVERSITY
Information Technology

BANNER XE REGISTRATION

The implemented Banner XE Registration has been redesigned with a more intuitive, and tablet-friendly, design to make it easier for students, advisors, and administrators to use. The Banner XE Registration module offers registration and advising, a registration plan, search and select for courses, a student class schedule calendar, enhanced block registration, structured registration for mandatory and optional courses, projection registration for students and their area of study, a preferred plan indicator that analyzes course demand, and linked sections that minimize errors by connecting lectures, and labs, that must be registered for concurrently.

TARGETED CUSTOMER/GROUP: WSU STUDENTS

"The new Banner XE registration system has given WSU new features that have allowed our students to more intelligently plan and register for their courses. When the new registration system was presented to the Student Senate it was met with thunderous applause. Through the new registration system, advisors were also presented with new tools that have allowed them to more proactively advise students."

- Casey Bullock, Registrar

Background
Banner XE Registration was initiated in-order to follow Ellucian's Product Roadmap. Ellucian has listed the following features being delivered with the new XE platform, such as:
- Applications are built on a common platform
- Ellucian can deliver improvements faster to customers
- Banner XE modules can be upgraded independently
- Reduces end-user support costs

Solution
Implementing Ellucian XE for Banner Registration made searching, registering, and planning ahead is more intuitive and consumer friendly. Additionally, institutions should be able to extend, configure, and add technologies as campus needs evolve—and do so without sacrificing existing investments.

Results
Implementing Ellucian XE for Banner Registration provided a modern registration experience. Students said it was a very intuitive and easy to use both the planning and registration functions; similarly, the steadily increasing self-service options improve efficiency and empowers users.

Strategic Objectives Addressed:

1. Recruit
2. Reduce
3. Result

SITE MANAGER 4.0

Site Manager has existed for many years now and through multiple iterations of the University homepage. It is the tool used across campus to maintain a unified look and feel for University pages. It also enables non-programmer users to update their sites. The previous update to Site Manager 3 was some time ago.

TARGETED CUSTOMER/GROUP

"The upgrades to Site Manager have helped me to be more efficient at my job. Peter's team did an amazing job of pulling together and asking lead users what they needed in a CMS. They then followed through with requests while maintaining transparency with progress, time estimates, issues and all new feature additions. These updates have enabled me to create more dynamic layouts without having to take the extra time to create my own code. Because these layouts are more visual in the WYSIWYG environment, I can trust more staff to maintain their own pages with basic updates, which gives me more time to embark on larger projects instead of just focusing on daily updates."

Danielle McKean, Student Affairs Web Development & Digital Media Supervisor

Strategic Objectives Addressed:

1. Recruit
2. Retain
3. Relate

Background

Given its long life span, the user experience of the current Site Manager is dated and the application itself is not mobile friendly. Page templates used by end users inherited a legacy of inconsistent and confusing naming conventions. Others are no longer in use or duplicate existing behavior. Changes, once committed by a user, could only be undone through expansive database rollbacks.

Solution

The UI was given a large overhaul to improve the user experience and to improve the speed of the application. Maintenance upgrades with third-party applications used within Site Manager were performed. Site Wide Settings were implemented to help power-users quickly perform repetitive tasks.

The templates were evaluated. Some were deleted or rolled over into other templates. The naming scheme was standardized. Further, a method for previewing and sorting templates was included to help users better understand what each template is capable of.

Version control was added to site manager to allow users to step back to previous version of their pages, to see who performed changes, or to act as a wayback machine.

Lastly, a series of video tutorials were recorded throughout the process both to help existing users understand the changes and to educate new users.

Results

Users are better educated on the features of site manager. Trainings are raised in their visual profile. Overall performance of the product has markedly improved which in turn results in improved performance by web developers and the university community. The focus of the web development team is now able to shift from bug squashing to adding features.

Application Dev Accomplishments
(Student)

Project Title	What and Why	Customers	Impact
Graduation MAPs	GradMAPs is an online tool for students, faculty, and advisors that provides a semester-by-semester path to graduation. Before the implementation of GradMAPs in the summer of 2015, students who wanted a "path" to graduation had to contact the academic department or visit with an advisor to know what courses to take in which semesters.	WSU Students	"The online tool, with its easy user interface, is a huge benefit to students! This is a major step forward in helping students plan to graduate." - **Bruce Bowen**, Associate Provost for Enrollment Services
Bounce Back for Colleges	Bounce Back is a system for tracking student progress that identifies struggling students and provides them a path to improve their academic success. It provides information and data advisors need to target each student's individual needs so a customized improvement plan can be made with each student. It also monitors progress to make sure the plan is working for them.	WSU Colleges	"I love that we are able to reach out to a larger population of students, helping more students than just those pursuing the Associate in General Studies. Thanks for all you and your team have done for this program!" - **Margarita Vara**, Senior Advisor, Student Success Center
Campus Logic	CampusLogic is a SaaS (Software as a Service, i.e. cloud) solution for automating the financial aid verification process. The CampusLogic solution provides a self-service financial aid experience for students with online task management, secure document upload from any device, built-in e-signature, and automated reminders. Financial aid staff also benefit from workflow-driven file review, pre-indexed document retrieval, and automated student communication. This system was then integrated with Banner and WSU's document management system.	WSU Students	"With the typical paper-based approach to financial aid, it's easy for students to make mistakes and re-submit paperwork multiple times, which lengthens the entire cycle. Now, with CampusLogic, student's financial aid experience will be personalized and provide automatic form validation so documents are correct the first time. We expect to see higher financial aid completion rates, faster processing, and better student satisfaction." - **Jed Spencer**, Director of Financial Aid & Scholarships
Banner XE Registration	The implemented Banner XE Registration has been redesigned with a more intuitive, and tablet-friendly, design to make it easier for students, advisors, and administrators to use.	WSU Students	"The new Banner XE registration system has given WSU new features that have allowed our students to more intelligently plan and register for their courses. When the new registration system was presented to the Student Senate it was met with thunderous applause. Through the new registration system, advisors were also presented with new tools that have allowed them to more proactively advise students." - **Casey Bullock**, Registrar
Boys and Girls State	Boys and Girls State is a highly integrated conference planning and registration system created for the American Legion, American Legion Auxiliary, and Weber State University's Continuing Education, Student Union, Housing, Admissions, and Financial Aid departments. The system allows each institution to maintain it's own business practices while integrating their processes and data into one unifying system of record.	WSU Students	"This multi-functional product incorporates the necessary data for all of the entities involved in Boys/Girls State. It truly will increase accuracy, decrease man hours, avoids confusion and redundancy with different spread sheets floating around, as well as streamlines these processes by batching jobs." - **Sherri Melton**, Director CE Financial and Enrollment Services

Project Title	What and Why	Customers
Paw Place	PAW Place combines powerful catalog and contract management tools with a user-friendly eCommerce interface. Through unique search technology, end users creating purchase requests are directed to the right supplier, the right commodity contracts and even the right products based on procurement policies.	WSU Faculty and Staff
3 New ePARs	Continuation of Employment ePAR - used when an employee who was previously hired on a temporary, or nonpermanent basis (i.e. 1 year hire), is now being hired into a permanent position. Supervisory Change ePAR - used when an employee's supervisor changes. Leave ePAR - used when an employee is being placed on leave or is returning from leave.	WSU Faculty and Staff
Volunteer Service	Allows faculty and staff to post volunteer opportunities at WSU. It gives the community a place to see the opportunities and apply for them.	WSU Faculty and Staff
KEAS - Keys and Electronic Asses System	Allows faculty and staff to request access to a building or room. It sends the request through approval queues and then to the key maker or area access coordinator. It allows the employee to pay for the key deposit through credit card, payroll deduction or inner department billing. The system will also allow the employee to see what keys are assigned to them.	WSU Faculty and Staff

Application Dev Accomplishments
(Web)

Project Title	What and Why	Customers
Site Manager 4.0	New Features - Site Wide Settings - Added advanced settings for site owners to enhance their productivity with features like default navigation and site-wide stylesheets - Version Control - In an effort to reduce data-loss or time loss, Version Control was added to Site Manager. It allows users to roll back their site to previous instances (save points) over the lifespan of the web site. - Tutorial Videos - Numerous tutorial videos were created to guide users through the changes and new features added through the upgrade process. These videos are complementary to the training already provided by the Web Development team.	WSU Staff and Faculty
Employee Wellness	We gave a large upgrade to the existing Wellness application. There was a rebranding and merging of separate wellness programs into one main program that is much easier to understand and navigate. The landing page and navigation was reinvented to more easily show requirements, track progress, and improve overall user experience. The ability to track wellness challenges was added, furthering the ability to show employee participation in wellness incentives. We also added some enhancements to the supervisors page, the auto-generated emails, the administration pages for Raeanna, and the portal branding.	WSU Staff and Faculty
Campus Video Tour	We built the Campus Video Tour in Site Manager to allow the admissions team to make minor text changes or make updates to video references incase a video needs updated in the future. The map is a separate image from the clickable play button icons. This gives us extra flexibility to update the map itself if it changes and also move the icons around the map to different places if needed without much effort.	WSU Staff
Weber.edu CAS Integration	Weber's custom applications were all upgraded to work seamlessly with our Central Authentication Service provider CAS. This upgrade included over a hundred custom applications within the eWeber portal, the portal itself, secure pages hosted on weber.edu, and several other secure applications and services. Doing this opened the door for the broader adoption of campus security initiatives including our dual authentication provider, DUO.	WSU Staff and Faculty
Tableau Dashboard Application	The Tableau Dashboard Application was created to give specific users access to individual reports while keeping them secure from the public or other report consumers. It dynamically generates the report and displays it on a secure web page.	WSU Staff
IT Reports and Request Application	To meet the need to integrate with Asana the Web Applications team developed a series of submittable web forms for Weber State users. These forms require no knowledge of Asana and collect a minimal amount of information to create a task in Asana for the relevant team.	WSU Staff

INFORMATION SECURITY SERVICES

Andrea Grover
Manager
Information Security
Services

The Information Security Office (ISO) goal is to provide information, resources, and tools to provide confidentiality, availability, and integrity of University data. We accomplish this by developing and modifying policies and procedures, conducting an annual risk assessment, providing training to University employees, and working with multiple groups and individuals across the University and other institutions to obtain and disseminate information and resources. The ISO also works closely with internal groups to resolve identified risks and mitigate potential risks.

Dual Authentication (Duo)

Projected Coverage
250

Current Coverage
139

55%

Identity Finder Installs

Total Systems: 6868
Lab Computers: 3299
IDF Installed: 3280

Total Systems - Lab / IDF Installs = 91%

91%

Anti-Virus Software (SCEP) Installs

Anti Virus Software (SCEP)

Total Systems: 6868
SCEP Installed: 5936

SCEP / Total Systems = 86%

86%

SECURITY CONTROLS

In close partnership with the Campus Technology Coordinators, we embarked on a project to reduce security risks, standardize reporting, and deployment of security tools to minimize cyber risk on campus.

TARGETED CUSTOMER/GROUP: WEBER STATE UNIVERSITY

"It used to be expensive to make things public and cheap to make them private. Now it's expensive to make things private and cheap to make them public."

Clay Shirky, Internet scholar and professor at N.Y.U

Background

With a decentralized IT, each college and/or department deployed security controls differently—with little to no oversight. In an ever increasing threat of cyber attacks on campus systems, the risk of losing sensitive information increased dramatically. We needed a way to standardize how each area reported and deployed current security controls.

Solution

The ISO in conjunction with the Campus Technology Coordinators (CTC) and IT, worked to determine the number of systems that already had the required software installed. We were primarily concerned with making sure each system had the University antivirus installed and the software product Identity Finder to determine if sensitive information, such as Social Security Numbers or Credit Card numbers were being saved locally. The CTCs and IT support worked with each area to install those products and make sure they were running appropriately. There was also a concern that users with greater access could have their accounts compromised so 2-factor authentication was introduced and pushed out to those individuals.

Results

With the assistance of the CTC and IT support, the security posture of the University has greatly improved. There was an increase of 85% of University systems reporting in that the approved University antivirus product is installed and running. Identity Finder is now installed on 3,338 workstations, an increase of 94%. And we now have 161 users utilizing Duo 2-factor across the University including areas such as Human Resources, Payroll, Internal Audit, and IT.

Strategic Objectives Addressed:

1. Reduce

Information Security Accomplishments

Project Title	What and Why	Impact
Risk Assessment	Conducted the annual risk assessment, incorporating recommendations from the USHE bi-annual assessment, the information security task force, data security stewards and CTC members. The Risk Assessment provides a ranking system to determine which information security risks are greatest for the University.	An reduction of risks to the University by working particularly on the top five identified risks.
Security Trainings	Developed and provided multiple information security training courses for general information security awareness and specific training for Data Security Stewards and new supervisors.	Improved security through user awareness.
DUO Dual Authentications	Increased the usage of Duo 2-factor to over 150 users improving the security of the University in key areas such as human resources, payroll, and information technology.	Improved security by reducing the chance of malicious individuals compromising University accounts.
SCEP	Coordinated with IT employees and CTC members to increase the number of systems having the approved University antivirus installed and running regular scans.	The latest numbers showed an increase of 85% of University systems reporting that SCEP is installed. This increases security through protection at the system level, reducing the potential of systems being infected.
Network Scans	Monthly network security scans are conducted to reduce the number of vulnerabilities present to the internal and external interfaces. The scans provide information to the responsible parties as to what systems need to have system or software patches implemented to remove the chance of the system being compromised through improperly patched systems.	Improved security of University resources by finding present vulnerabilities and, working with the responsible parties, resolving the vulnerabilities.