CIO:
Brian T. Nichols, Associate Vice President for Administration & IT/CIO

Office of the CIO:
- Human & Financial Resources Officer: Susan T. Crochet
- Communications & Planning Officer: Sheri J. Thompson
- LOUIS: Sara Zimmerman, Executive Director
- LONI: Lonnie Leger, Executive Director

Information Technology Services:
- User Support & Student IT Enablement:
  - Pam Nicolle, Executive Director
  - Michael P. Smith, Director, Technical Services
  - Stacey B. Morales, Director, Customer Service
  - Buddy Ethridge, Director, Academic Technology Services

University Information Systems:
- Cynthia M. Hadden, Deputy CIO
- Douglas A. Pacas, Director, Financial Information Systems
- Byron D. Honore, Director, Enrollment Information Systems
- Robin Ethridge, Director, Portal Technology & Academic Analytics

University Networking & Infrastructure and High Performance Computing:
- Ric Simmons, Deputy CIO
- Sean G. Robbins, Director, Network Engineering
- Terry Doub, Director, Network Operations
- Samuel P. White, Director, High Performance Computing

Information Security & Risk:
- John Borne, Deputy CIO
- Craig Callender, Security & Policy Officer

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Web site: www.lsu.edu/cio
Dear Colleagues:

I am pleased to present the 2014 edition of Momentum, LSU Information Technology Services’s annual report. Momentum details the progress we have made University-wide toward meeting our mission through IT-enablement. This year’s highlights include the deployment of two new supercomputers, the publishing of LSU’s newest IT strategic plan – FITS 2020, and updates to Moodle. Highlights aside, ITS has worked diligently to maintain its current systems, improve the campus technology infrastructure, and provide stellar IT service campus-wide.

In addition to maintaining our complex, legacy enterprise information systems environment, our University Information Systems (UIS) group has worked with campus stakeholders to roll out modern solutions like Hobson’s Radius for undergraduate and graduate admissions, StarRez, a new housing management system, and AMS Asset Management Software for the University’s equipment inventory. We also modernized our web services environment, rolling out over 20 new sites and enabling faculty usage of WordPress. A committee made up of various representatives from the LSU Community worked to select a new human resources and financial enterprise system which we expect to rollout in 2016.

On the infrastructure side, we continued our efforts to improve network hardware and fiber connections. ITS upgraded the remaining DSL-connected buildings with 1 or 10 Gbps fiber connections, is in the process of changing out multi-mode fiber within buildings to single mode fiber to support 10Gbps speeds and beyond, increased 10Gbps port capacity at our core routers, and added wireless access points for better WiFi coverage throughout the campus. This year also saw full deployment of IPv6 connectivity to our clients.

As in previous years, ITS held its three signature events: the HPC Users Symposium, the Torchbearer Award Ceremony, and the new Tech Share which replaced TechPawLooza. The High Performance Computing (HPC) group held its third annual user symposium in June. The symposium consisted of a series of invited talks and a poster session discussing research using HPC systems. In mid-November, ITS partnered with the College of Humanities and Social Sciences to host Tech Share. This event showcased the ways in which the College utilized technology to enhance teaching and research. ITS honored Dr. Kevin Cope, professor of English and Faculty Senate President and Dr. William Monroe, Hebert Law Center’s director of instructional technology in early December. Both of these individuals were recognized for their support of ITS efforts campus-wide.

The upcoming year will be a greater challenge as we begin our journey in implementing a new human capital management and financial systems solution. The new enterprise solution will be a pivotal step in our modernization of the information systems and processes.

We will continue to improve our infrastructure and the services we provide to meet your expectations and emerging needs. We will maintain our momentum.

I appreciate your continued input and support of ITS!

Sincerely,

Brian T. Nichols
Associate Vice President for Administration & IT/CIO

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Brian T. Nichols
Associate Vice President for Administration & IT/CIO

Photo Courtesy of Kevin Duffy, ITS
LOUIS Team

- Presented LOUIS Update, LALINC Fall Membership Meeting

David Elliott

- Presented Configuration & User Settings. Moodle Gradebook Research Conference, Long Beach, California

Hala Esmail

- Presented Technology Resources to Engage Your Students & Make Your Life Easier. LSU Education Symposium, Spring 2014, Fall 2014.
- Completed the Online Learning Consortium (OLC) Certificate Program

Robin Ethridge

- Member, LSU SACS-COC Steering Committee
- Member, LSU Master of Science in Analytics (MSA) Board of Advisors

Wen Fan

- Completed the Online Learning Consortium (OLC) Certificate Program

Cindy Hadden

- Member, EDUCAUSE Connect 2014 Content Architects Committee
- Facilitator, EDUCAUSE Connect 2014, Baltimore, Maryland

Jeffry Handal

- Presented LONI/LSU: State of the Network. NANOG 60, Atlanta, Georgia
- Presented Importance of Standards for Industry Practitioners. IEEE Sections Congress, Amsterdam, Netherlands
- Led Net Gurus. Internet2 TechX, Indianapolis, Indiana

Brandon Johnson

- Awarded 2014 Communication Award for Electronic How-To Guides. ACM SIGUCCS

Adam Landry

- Presented Help Desk After Hours. ACM SIGUCCS Annual Symposium, Salt Lake City, Utah

Quang Le

- Awarded GIAC Exploit Researcher and Advanced Penetration Tester (GXPN)

Nathan Lewis

- Presented OpenNet Lightning Round Presentations, LSU UNI Quarterly Meeting

Gary Mumphrey

- Presented You Matter! What Would You Like to See in Your Network? LSU TSP Summer Bootcamp

Holly Rabalais

- Awarded GIAC Certified Forensic Examiner (GCFE)

Robert Russo

- Presented Moodle Gradebook: The Next Iteration. Moodle Gradebook Research Conference, Long Beach, California
- Presented Reimagining the Grader Report. Moodle Gradebook Research Conference, Long Beach, California
- Presented Moodle Gradebook Administration Setup. Moodle Gradebook Research Conference, Long Beach, California
- Presented Gradebook Interface. Moodle Gradebook Research Conference, Long Beach, California
- Presented Letters, Scales, and Numbers. Moodle Gradebook Research Conference, Long Beach, California

Alexandra Sedevie

- Presented LSU Wireless Overview. LSU TSP Summer Bootcamp

Cathy Sicard

- Presented Partnering to Build a Library Services Platform, LOUIS Users Conference

Ric Simmons

- Presented An Interactive Discussion about Cloud Storage. ACUTA Fall Seminar, Boston, Massachusetts

Michael Smith

- Awarded 2014 Communication Award for Electronic How-To Guides. ACM SIGUCCS

Marcy Stevens

- Presented Keep Calm and Breathe During Disaster Recovery, COSUGI Conference

Lisa Stigall

- Appointed to the EBSCO Academic Board

Georgi Stoyanov

- Presented Current Projects and Discussion Panel. LSU TSP Workshop
- Presented OpenNet Lightning Round Presentations. LSU UNI Quarterly Meeting
**RECOGNITION**

**Sheri Thompson**
- EDUCAUSE Connect Proposal Reviewer
- CampusEAI Consortium LookingGlass Working Group

**Kevin Tohline**
- Presented Intro to Wireshark. LSU TSP Summer Bootcamp

**Isacc Traxler**
- Presented Xymon and System Monitoring. LSU Linus Brown Bag Lunch Seminar
- Presented New RCD Presentation. Regional Contest Directors Symposium, ACM International Collegiate Programming Contest
- Presided over North American RCD Meetings
- Presented on various topics. LSU ACM Student Chapter
- Presented on various topic. Baton Rouge Macintosh User Group

**Adam Viator**
- Presented Better Software for a Better Library, Louisiana Library Association Conference

**Shannon Wall**
- Awarded 2014 Communication Award for Electronic How-To Guides. ACM SIGUCCS

**David West**
- Awarded 2014 Communication Award for Electronic How-To Guides. ACM SIGUCCS

**Kevin Williams**
- Presented Help Desk After Hours. ACM SIGUCCS Annual Symposium, Salt Lake City, Utah

**Mark Witteman**
- Chair, COSUGI Board (Customers of SirsiDynix Users Group International)
- Presented Better Software for a Better Library, Louisiana Library Association Conference
- Presented with Karen Cook (State Library), Michael Sartori (McNeese) New Louisiana Documents Classification and You, LOUIS Users Conference

**Le Yan**
- Presented/organized LSU HPC User Symposium

**Michael Zielewski (student worker)**

**Sara Zimmerman**
- Awarded Carlberg Award. Libraries Southwest
- Appointed to the EBSCO Users Group Board
- Presented Attacking LALINC/LOUIS Strategic Initiatives, Louisiana Library Association Conference
- Presented Collection Development and Vendor Negotiations, LSU SLIS 7012

*Photo Courtesy of Kevin Duffy, ITS*
ITS hosted its fourth annual Torchbearer Award for Leadership in IT Advancement award ceremony on December 4, 2014. The Torchbearer Award for Leadership in IT Advancement recognizes a student, staff or faculty member who has greatly assisted ITS in successfully deploying a new service or resource during the previous year. Nominated by a staff member in ITS, these individuals efforts on our behalf have greatly improved the IT environment for the entire campus. This year, two individuals were honored.

Will Monroe, head of instructional technology with the Hebert Law Center, is recognized as a 2014 Torchbearer award recipient. Dr. Monroe has been instrumental in assisting ITS with the implementation and continued enhancement of several IT resources over the years. In recent months, he assisted in the planning and launching of the Panopto Lecture Capture pilot. He was also involved in the implementation of the Qualtrics Online Survey tool which ITS recently purchased. For the last several years since implementing Moodle as our campus-wide course management system, Dr. Monroe has assisted Academic Technology Services in the testing of features and providing feedback. He serves as a member of the Moodle Development Advisory Committee (MDAC). He has participated as a presenter at many events the Faculty Technology Center has hosted throughout the years, and has assisted in several faculty support endeavors. Will Monroe’s efforts and involvement have made a positive impact at LSU, and his enthusiasm and dedication make him an invaluable member of the LSU community.

Our second 2014 recipient is Kevin Cope, an English faculty member who has strongly supported technology initiatives which impact our campus. Throughout his multiple terms as Faculty Senate President, Dr. Cope has been both our harshest critic and one of our most vocal advocates. Throughout the years, his honesty and forthright comments have forced us to alter direction, make changes, improve, and grow. We count on his candid assessments. From appointments to the IT Governance Council, changes to Moodle, embracing eduroam, and pointing out issues with wireless access, Kevin Cope has become a vital partner to our success. Nothing gets deployed or changed significantly if it impacts the faculty IT experience without first securing his buy-in. If Dr. Cope is happy, we can be fairly confident that our faculty will be as well. When we are doing things well, he makes sure the campus knows it by publicly lauding our work in the Faculty Senate Newsletter.
GROK provides documentation on how to access and use IT Services offered by LSU
- 9,380 articles in GROK
- 10,357,574 article views

8.1 Help Desk
38,823 Incidents reported to the Help Desk (12/04/14)
- 19,891 Telephone Calls received (12/04/14)
- 95% call answer rate
- 91% of our customers are satisfied or very satisfied with their service.

Software needed by the university to conduct business is provided by TigerWare
- 132,195 software package downloads from TigerWare
- 17,244 On The Hub downloads referred from TigerWare
- 772 software support instances closed

Filled 376 Resource Requests of audio/video equipment (pick-up and delivery) for use in non-multimedia classrooms; as well as student assignments, conferences, and assemblies.

Performed 42 software installation requests for faculty in multimedia classrooms.

Number of instructors using clickers:
- Spring 2014: 73
- Fall 2014: 74

Number of courses (sections):
- Spring 2014: 149
- Fall 2014: 165

The Faculty Technology Center provided one-on-one and group support to faculty:
- Offering workshops and webinars for LSU faculty, staff, and students. Workshops included: Adobe Connect, Moodle Express (webinar), Engaging Students with PowerPoint, Excel 2010- The Basics, Moodle Basics and Beyond, Moodle Express, Moodle Gradebook, Moodle- Beyond Multiple Choice Questions, Moodle- Expanded Features, Engaging Your Students With Moodle Discussion Forums, Using Moodle for Assignments: File Submissions or Online Journal, Moodle Collaborative Features, Turnitin, Using Clickers with Turning Point 5, and Using Clickers as a Teaching Tool.
- Number of workshops: 111
- Number of attendees: 372

Offering customized departmental/group workshops for LSU faculty, staff, and students.
- Number of workshops: 45
- Number of attendees: 387

Documented service/help provided into the Footprints system.
- Number of Footprints tickets closed by FTC staff: 1953 (Jan. 14 – Dec. 14)

Sponsored/hosted events (Tech talks, Coffee Talks, Webinars, Technology Share Fairs):
- Tech Talks: 3
- GTA Webinars: 5
- Webinar Viewing with Follow-up Discussion: 6
- Participated in Library Open House
- National Distance Learning Week Faculty Event (November, 2014)
- 2014 Fall Tech Share- In collaboration with the College of Humanities and Social Sciences: Consisted of 14 presentations across 9 different departments. Approximately 160 LSU faculty, staff and students attended the event.

Established relationships by visiting departments and meeting faculty groups:
- Number of visits: 11
94.1% of LSU undergraduate student users (27,492 of 29,210) are enrolled in at least one active Moodle course.

76.1% of faculty members currently teaching a course (1,547 of 2,033) are actively using Moodle.

71.5% of undergraduate course offerings are active in Moodle. 18.4% of graduate level course offerings are in use.

61.6% of all course sections offered at LSU and LSU LAW are actively being used in Moodle.

90.3% of LSU undergraduate student users (28,096 of 31,106) are enrolled in at least one active Moodle course.

77% of faculty members currently teaching a course (1,652 of 2,145) are actively using Moodle.

78.2% of undergraduate course offerings are active in Moodle. 18.6% of graduate level course offerings are in use.

65.4% of all course sections offered at LSU and LSU LAW are actively being used in Moodle.
LOUIS: The Louisiana Library Network Fiscal Year 2014

Here are the major activities completed by LOUIS during the past year. LOUIS was successful in licensing, maintaining and supporting the following services and activities.

A. Integrated Library System (SirsiDynix Symphony, e-Library, Workflows, BlueCloud)
   - SirsiDynix Symphony, the library staff client and the electronic catalog
   - SirsiDynix e-Library, the user interface
   - Retired SirsiDynix Web2, the union catalog
   - Implemented Northshore Technical Community College and Xavier University
   - Consulted and negotiated favorable pricing for Our Lady of Holy Cross College and Central Louisiana Technical Community College
   - Consulted/designed student/faculty/staff data extract for community colleges from LCTCS data center
   - Beta tested and implemented next generation library functionality
   - Consulted and implemented authentication solutions
   - Researching / designing / implementing a library services platform (LSP) using current partnerships and software to produce dynamic next generation solutions
   - Coordinated and attended North and South users group meetings, webinars and various training
   - Attended and presented at COSUGI and various other conferences
   - Negotiated and provided technical input to design course management integration via Discovery into Moodle/Blackboard
   - Actively participate in SirsiDynix’s Strategic Partner Program helping define future functionality of the Symphony system
   - Purchased e-Learning seats for online courses
   - Defined and documented Best Practices for Infrastructure, Architecture and Security
   - Maintain operational reports, backup to hotsite and offsite, recovery from hotsite
   - Successfully conducted the biyearly Disaster Recovery test
   - Provided customization for services for webpages and reports
   - Hosted 2 System Administrator Meetings
   - Addressed 456 FootPrint incidents
   - Negotiated new pricing, terms and additional services SirsiDynix contract

B. Electronic Resources
   - Eighty-one scholarly electronic resources (academic journals, full-text and abstracts, citation databases, etc) via twelve provider partners were licensed for all LOUIS members
   - Twenty-seven scholarly electronic resources (academic journals, full-text and abstracts, citation databases, etc) via fourteen provider partners were licensed for various subset of LOUIS members
   - Nine resources were evaluated and determined to not meet the needs of LOUIS members
   - Six resources are under current review
   - Negotiated trial access for all resources defined from the Nursing e-Resource Task Force
   - Renewed Credo Literati, information literacy – a joint collaboration with the State Library of LA
   - Addressed 181 FootPrint incidents
   - Negotiated new pricing for all electronic renewals at less than a 3% uplift for the year

C. Interlibrary Load (OCLC Atlas ILLiad borrowing and lending)
   - OCLC Atlas ILLiad, the inter-library loan system
   - Implemented Xavier University
   - Attended ILLiad International Conference
   - Hosted North and South ILLiad Users Group Meetings
   - Migrated to new Atlas training platform
   - Upgraded to Version 8.5
   - Address 236 incidents
   - Provided customization services.
D. Integrated Search and URL Resolver (EBSCO Discover, AtoZ, LinkSource)

- Replaced SirsiDynix Web2 with EBSCO Discovery
- Researched / designed / implementing a library services platform (LSP) using current partnerships and software to produce dynamic next generation solutions
- Negotiated an implementation plan for integration of Discovery into Moodle/Blackboard
- Reworked nightly extract to populate Discovery more efficiently
- Provided customization services for extracts and webpages
- Loaded, on average, 70,000 A-to-Z records each month for sites using the LOUIS EZproxy MARC service
- Partnered with LOUIS sites and EBSCO to continue to enhance EDS to meet their needs
- Partnered with LOUIS sites and EBSCO to continue to enhance the A-to-Z with MARC service integration into the catalog
- Addressed 49 FootPrint incidents

LOUIS was successful in licensing, maintaining, enhancing and supporting the following ancillary services and activities:

- Supported the LOUISiana Digital Library
- Communicated with members using email, listservs, and social networking tools such as Twitter, Facebook, YouTube and the LOUIS website
- Hosted the 21st LOUIS Users Conference (LUC)
- Attended 21 training sessions
- Conducted 4 training sessions
- Arranged 9 training sessions
- Collaborated with 12 LALINC Task Forces
- Collaborated with 3 LALINC Interest Groups
- Collaborated with all LALINC Executive Board discussions and Membership Meeting
- Implemented Learning with LOUIS – a monthly training session – hosted 12 LwL sessions
- Arranged 4 North South User Group Meetings
- Conducted 13 site visits
- Participated in Strategic Partner Program conference calls
- Participated in ICOLC Lyrisasis consortium calls
- Continued to grow Footprints Knowledgebase which now has 600+ documents
- Enhanced Big Brother server monitoring system
- Enhanced the newly redesigned LOUIS website
- Had one LOUIS staff member participate on EBSCO Academic Advisory Board
- Had one LOUIS staff member serve on 2014 COSUGI Executive Board
- Invoiced and received payment from all LOUIS members
- Maintained all administrative content (documentation, partners, databases, software, financial)
- Participated in all LALINC Executive Board meetings
- Participated on all Task Forces, Working Groups, and Interest Groups
- Partnered with UNIX server administrators in the areas of disk space management, security, backup and recovery, and operating system maintenance
- Targeted specific training to insure all resources and services are used and properly understood
- Received 1117 new incidents via FootPrint incident portal (195 various types)
- Initiated 6 press releases
- Participated in Louisiana Library Association Legislative Day
- Redesigned LOUIS webpage and all PR materials
- Worked with outside sponsors to obtain PR materials
- Designed and Implemented a new LOUIS Brochure
- Designed and Implemented Site Participation Summary Report
2014 YEAR IN REVIEW

**Deployment of IPv6**

Wireless Upgrades

**Ended 802.11b wireless protocol support**

Anti-Plagiarism Tools made available through Moodle

**Windows XP and Office 2003 retired**

FTC pilots video captioning

**SuperMIC supercomputer ranks in #65 in world’s Top 500**

Eduroam replaces lsusecure

**HPC User Symposium**
<table>
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<tr>
<th>JULY</th>
<th>AUGUST</th>
<th>SEPTEMBER</th>
<th>OCTOBER</th>
<th>NOVEMBER</th>
<th>DECEMBER</th>
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<tbody>
<tr>
<td>FITS 2020 released</td>
<td>Request for Proposals for Human Resources and Financial Systems (ERP)</td>
<td>Mobile printing for public access labs</td>
<td>Torchbearer Awards</td>
<td>New housing management software deployed</td>
<td>Review of Proposals for new ERP</td>
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<td>Upgraded to Moodle 2.7</td>
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<td>LOUIS Executive Director wins Carlberg Award</td>
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<td>New wireless subnet rolled out</td>
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<td>External Security Review</td>
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<td>Panopto Lecture Capture pilot begins</td>
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<td>AMS/ASSET Works deployed</td>
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<td>Rolled out new Undergraduate admissions platform</td>
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<td>QBII Supercomputer goes online</td>
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<td>GROK wins SIGUCCS Communication Award</td>
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<td>Fall Faculty Tech Share with the College of Humanities and Social Sciences</td>
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<td>QB-2 ranks in #46 in world’s Top 500</td>
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LSU Information Technology Services began its use of campus-driven strategic plans in 2005. The original Flagship Information Technology Strategy (FITS) provided guidance for nearly a decade. The next generation of campus-driven driven IT plans was developed over the 2013 and 2014 calendar years culminating in FITS 2020.

This new strategic plan has a new set of goals and aligns with LSU’s strategic plan, Flagship 2020.

**FITS Goals:**

**DISCOVERY**

*Discovery:* Expand discovery through transformative research and creative activities addressing contemporary and enduring issues that shape the way we live in the world. Information Technology Services (ITS) supports “Discovery” through enabling research activities and student use of technology.

Discovery that leads to innovation, the advancement of research and creative endeavors should be accomplished within a robust and secure IT environment. Discovery relies upon a modern infrastructure, investments in research enablement, and a set of protective policies and practices to keep information and systems secure.

Goal I: The University shall maintain a modern, state-of-the-art network and infrastructure

Goal II: The University shall consistently enable research through strategic investments

Goal III: The University shall ensure the security and integrity of its infrastructure and information.

**LEARNING**

*Learning:* Enhance a faculty-led and student-centered learning environment that develops engaged citizens and enlightened leaders. Information Technology Service (ITS) supports “Learning” through enabling research activities and student use of technology.

Goal IV: The University shall maintain a robust and plentiful IT environment to enable faculty teaching and student learning.

Goal V: The University shall provide access to data to make timely and informed decisions.

**DIVERSITY**

*Diversity:* Strengthen the intellectual environment by broadening the cultural diversity of the LSU community. Information Technology Services (ITS) supports “Diversity” by providing premier IT resources to attract and retain quality students, staff and faculty.

Retention and recruitment of quality students, staff, and faculty requires a robust, accessible and well-supported IT environment with exemplary customer service

Goal VI: The University shall provide easy and ready access to IT infrastructure and services

Goal VII: The University shall provide an agile suite of services to successfully and consistently carry out the day-to-day operations of the University.

Goal VIII: Information Technology Services shall provide an exemplary customer service focus in all of its work.

**ENGAGEMENT**

*Engagement:* Promote engagement of faculty, staff, and students in the transformation of communities. Information Technology Services (ITS) supports “Engagement” through secure and ready access across technologies. As technology may be a tool for transformation of communities, ITS wants to ensure the campus community remains engaged in the evolution of technology and IT services in real-time.

Goal IX: Information Technology Services shall serve the needs of, and rely upon the input from, the entire campus community.

Goal X: Information Technology Services shall effectively communicate with the campus community.

Goal XI: The University shall ensure that campus IT resources are ubiquitous and easy to use.

Here are the 2014 milestones ITS has achieved toward the current FITS 2020 Goals:

**Goal I:** The University shall maintain a modern, state-of-the-art network and infrastructure.

- Increased security on the wireless network by segmenting the LSUGuest wireless network from the internal network.
- Moodle links to communication and collaboration tools that enhance teaching and learning, staff training, and enhanced business efficiencies;
Panopto offers an integrated lecture capture service for LSU faculty; Adobe Connect and BigBlueButton provide web-conferencing solutions; Kaltura serves as both a video repository and streaming service.

- Planned and implemented IaaS (Infrastructure as a Service) services for the campus to include storage and processing capacity which is offered to the campus
- Continued deployment of voice over internet protocol (VoIP) phones across campus.
- Installed additional high density wireless access points in Coates Hall, the Union, Design, Art, and Atkinson Hall
- Full deployment of IPv6 connectivity to clients
- Continual upgrade/expansion of campus network infrastructure (network hardware and fiber):
  - Elimination of more DSL-connected buildings and replacement with 1 or 10 Gbps fiber connections.
  - Changing out multi-mode fiber within buildings to single mode fiber to support 10Gbps speeds and beyond.
  - Increasing 10Gbps port capacity at our core routers.
  - Increasing redundancy throughout the network.
  - Increase wireless access points for better WiFi coverage throughout the campus.

**Goal II: The University shall consistently enable research through strategic investments**
- Qualtrics, a robust survey software, was deployed campus wide.
- Co-hosted with the research community on-going Linux Brown Bag Lunches
- Working with the LSU Libraries and LSU Law Center, Moodle now includes integration with EBSCO Information Services, offering rich and ready access to the online research service.
- Deployed SuperMIC and LONI’s QB-2 supercomputers

**Goal III: The University shall ensure the security and integrity of its infrastructure and information.**
- LSU underwent an external IT security assessment performed by higher education security professionals in October 2014.
- Provided a new tool to departments that searches for, protects, and disposes of personal information such as credit card and social security numbers stored on your computer, file shares, or external media.
- Participated in disaster recover exercises, continuing to expand the systems included in the exercise to additional distributed systems.
- Relevant staff have completed the SANS Secure Coding in Java: Developing Defensible Applications course.
- Continued efforts to keep the applications and computer environment for which we are responsible patched and up-to-date with recommended versions. (Ad Astra, Bedework, Domino, myLSU, SAS, Wordpress, etc.)
- Continued efforts to migrate applications from older technologies (Domino, mainframe) to more modern platforms (Java, WordPress, LDAP, CAMEL, web services, etc.). Some examples over the past year include:
  - New WordPress sites (some migrated from Studio Web)
  - New method for email broadcasts utilizing web services (migrated from Domino)
  - New credit card processing methodology utilizing Java applications
  - New Java applications for Asset Works implementation
  - Migration of Fee Bill and Registration “governors” to modern traffic managers
  - Re-engineered the security model of the enterprise reporting environment (EIS and Program Review) to enable data stewards to self-manage security access.
  - Enhanced the IT security and enterprise portal infrastructure to enable more frequent synchronization of identity management system components.
Continued to work closely with IT Security to identify and mitigate any potential vulnerabilities encountered throughout the year within the distributed systems area.

- Removal of SSN data from within the Domino legacy environment.
- Enabled single-sign-on and/or authorization services for AssetWorks (Shibboleth and SAM), K2 (ADFS), Qualtrix.com (CAS), and Files-to-Geaux (migrated to CAS).
- Migration of department wiki to a more secure environment
- Completed the removal of old MyProxy data.
- Continued research collaboration with IT Security to identify potential Identity and Access Management replacement solutions.

Goal IV: The University shall maintain a robust and plentiful IT environment to enable faculty teaching and student learning.

- The Moodle team supported five distinct Moodle instances (Academic, Community, LSU Online, U-High, and Ag Center)
- The Faculty Technology Center provided on-going support of “clicker” technologies. Working with UNI, the FTC is further expanding their knowledge by investigating new response-based technologies that do not require the “clicker” device.
- The Digital Imaging & Videos Services group provided escalated and up-to-date support for classroom lecture capture, streaming video, and web-conferencing technologies.
- Hosted 13 distance education classes using compressed video
- Tested several software products to enable use of handheld devices (namely, iPads) wirelessly to display on the classroom computer and ultimately to the projector for student viewing. Selected the best candidate (AirServer) to accomplish the immediate goal. Continuing to work with UNI to develop a more versatile solution.
- Assisted with hardware and software installation for the Panopto lecture capture system in 13 multimedia classrooms.
- Trained and assisted faculty in the use of lecture capture solutions (Adobe Connect and Panopto) used in the Bo Campbell auditorium. Also worked with them in using new equipment and software programs as needed (mainly Turning Point).
• Addressed community needs as directed by the Moodle Development Advisory Committee:
  • Upgraded to Moodle 2.7 (August, 2014), providing a faster, better supported Moodle environment for faculty and students
  • Re-imagined LSU LAW School’s requirement for paper rollsheets and built a cross-campus system which empowers faculty to learn students’ faces
  • Implemented a preferred name feature in response to LGBT concerns as spelled out by an LSU Student Government resolution
  • Developed integrations for various third party tools for which integrations into Moodle 2.7 did not previously exist (Turnitin, ProctorU, McGraw-Hill)
  • Enhanced a new Google Open Authentication plugin for the LSU Ag Center’s MOOC Moodle platform

Goal V: The University shall provide access to data to make timely and informed decisions.
• Enhanced the University’s decision support infrastructure by collaborating with the Office of Institutional Research to begin consolidating multiple reporting systems into one. This year the Program Review Data reports were merged into the Enterprise Information System.
• Enhanced the University’s reporting infrastructure by collaborating with the Office of the University Registrar to expand the use of Reports-to-Geaux to include reports available to academic departments.
• New reports delivered via Reports-to-Geaux for the Office of Admissions, the Department of Residential Life, and the Office of the University Registrar.
• Implemented a new data feed in support of Pennington’s compliance with the Patient Protection and Affordable Care Act (PPACA).
• Re-engineered the annual Board of Regents facilities reporting process to include all LSU institutions.
• Completed a proof-of-concept implementation of the Ivory Service Architect software to enable bi-directional data integration using modern technology protocols.
• Continue to expand the use of web services to enable easier access to core data and to reduce data replication to external systems. New data services were created in support of the following campus initiatives: Moodle, Leave Certification, Identity Management, Nolij document management, credit card processing, CATS, and the StarRez housing management system.

Goal VI: The University shall provide easy and ready access to IT infrastructure and services
• Provided video conferencing services for numerous departments across campus
• Provided audio/video equipment and support, and short notice web streaming (via Adobe Connect) for various groups and departments
• Purchased a campus license for DreamSpark from Microsoft which added a large suite of developer orientated software packages to TigerWare / OnTheHub.
• The upgrade to Moodle 2.7 included a native theme that is compatible with all industry-standard mobile applications and devices.
• By purchasing enterprise-level licenses, ITS continued to work (in collaboration with Academic Affairs) to eliminate redundant school/college licenses of vended products such as Panopto, Adobe Connect, iThenticate, and Turnitin
• Wireless networking continues to expand

Goal VII: The University shall provide an agile suite of services to successfully and consistently carry out the day-to-day operations of the University.
• Implemented Student Government Election tool
  • Fall election through Moodle returned 3269 ballots (an increase of nearly 200% over previous Fall semester returns)
• Allowed the retirement of the legacy election tool maintained by UIS
• Migrated Graduate Admissions and Undergraduate Admission applications from their legacy platforms to a single, more robust 3rd party software (Hobson’s Radius, hosted by Hobson).
• A new inventory management system, AMS Asset Management Software (hosted by AssetWorks), has been installed to assist in the maintenance of the University’s equipment inventory.
• This year the University expanded its use of WordPress to faculty. There are currently 39 faculty sites implemented in WordPress.
• Department of Residential Life implemented a new housing management system, StarRez. Several data interfaces were developed to migrate historical records to the new system and to enable the bi-directional movement of information between StarRez and other enterprise information systems. In addition, the legacy “RES” Residential Life system was decommissioned.
• A new web-based application was built for requesting mainframe jobs, providing ease of use and additional control, flexibility, and accuracy
Goal VIII: Information Technology Services shall provide an exemplary customer service focus in all of its work.

- The Faculty Technology Center provided one-on-one and group support to faculty
- Offered customized departmental/group workshops, boot camps, tech talks for LSU faculty, staff, and students
- Established relationships by visiting departments and meeting faculty groups
- Created and updated documentation (tip sheets, quick guides, etc.) for Moodle 2 and other software which are available in GROK as well as the ITS website.
- Assisted faculty in the development of online courses.
- Assisted and supported departments/programs hosting webinars with Adobe Connect.
- Assisted in planning the Faculty Colloquium 2014.
- Worked with LSU Academic Affairs to provide support for iThenticate and Turnitin.
- Worked with staff from LSU Online to host events and support faculty with online teaching.
- USS developed a training curriculum on how to create a service culture that will be implemented first in USS and then to all of ITS
- Bomgar was kept up to date throughout the year. The service allows the ability to remote into Mac, Windows, Linux, iOS, and Android devices to provide IT assistance.

Goal IX: Information Technology Services shall serve the needs of, and rely upon the input from, the entire campus community.

- While evaluating the Panopto system, members of the Moodle and Digital Imaging & Video Services teams met with LSU Law, Business, Engineering, and Vet Med Schools to gather input regarding requirements and expectations.
- Relied upon campus wide focus groups to develop FITS 2020
- Updated membership to the Faculty IT Governance Council
- Included faculty and staff in various ITS committees
- Participated in Student Tech Fee Oversight Committee

Goal X: Information Technology Services shall effectively communicate with the campus community.

- Participated in student orientations, Bengal Bound, Kick-off LSU, Fall Fest, Library Open House, Staff Benefits Fair.
- The Faculty Technology Center continued to host graduate assistant coffee talks, informative webinars, and departmental training sessions.
- The TechShare event replaced the TechPawLooza tech fair and focused on faculty and student technology usage.
- GROK provided documentation on how to access and use IT Services offered by LSU
- Regularly utilized IT Wire, ITINFO Listserv, myLSU, newsletters, and social media to share news impacting campus

Goal XI: The University shall ensure that campus IT resources are ubiquitous and easy to use.

- Hosted various training opportunities.
- GROK provided documentation on how to access and use IT Services offered by LSU
- Single sign on for all network services has been implemented

Community

Information Technology Services is composed of people who value the community in which we work and live. ITS maintains a committee, called PACE, dedicated to promoting and coordinating opportunities for ITS employees and their families to contribute their time and/or money to notable causes. ITS participated in the following community events in 2014:

- Toys for Tots
- Pat’s Coats for Kids
- Partnered with Facility Services to plant a small garden outside of Frey
- LSU Student Food Pantry Food Drive
- Geaux Red for Women via American Heart Association /Heart Drive
- LSU Earth Day -- Pulled Weeds outside of Frey
- LSU Geaux Big
- LOPA-Louisiana Organ Procurement Association seminar
- CPR Training
The Louisiana Optical Network Initiative (LONI) has become an integral part of the technology infrastructure for Louisiana postsecondary education which provides services and connectivity to the community on a seamless and continuous basis at costs that are significantly lower than institutions were paying previously to the existence of LONI. The operation of LONI by well-trained and dedicated staff at LSU has become a benchmark for high-performance and cost effectiveness. The LONI network can serve as a model of how collaboration and technology can be employed to provide an unprecedented level of services to institutions, students, researchers, faculty, and many other areas of State need in a cost-effective manner.

Research/Grants and Special Projects/Activities

Work continued on many research and grant awards, some of which were extended/renewed, during FY2013-14 that had been secured originally based upon LONI resources and capabilities available to researchers. Major projects underway during FY2013-14 were:

- $20M - Statewide NSF/EPSCoR RII in Materials Science
- $6M - tri-state NSF/EPSCoR RII Track 2 in Coastal Studies
- $1.2M - NSF/EPSCoR RII C2 connecting Xavier to LONI
- $15M - LBRN Biomedical Research Network
- $499,758 - NSF, CC-NIE Network Infrastructure: CADIS -- Cyberinfrastructure
- Advancing Data-Interactive Sciences
- $947,860 - NSF, CC-NIE Integration: Bridging, Transferring and Analyzing Big Data over 10Gbps Campus-Wide Software Defined Networks

Network Development and Enhancement

There were a considerable number of new, modified, expanded and improved network configurations and connections to LONI by the postsecondary education community through the fiscal year of the agreement. Major changes in LONI network configurations and connections:

Upgraded LSU to 100Mbps service
- Upgraded SUNO to 250Mbps service
- Established service to McNeese Dorms
- Upgraded Nunez Community College to 50Mbps service
- Upgraded Baton Rouge Community College to 100Mbps service
- Established service to BoR in Claiborne at 30Mbps
- Established Internet service for LSU DR at ISB
- Established DR service for Pennington Biomedical Research Center at LSU
- Upgraded Pennington Biomedical Research Center to 47Mbps
- Relocated service to LTC Westside and Northwest campuses
- Upgraded LTC Avoyelles to 10Mbps service
- Established service to Northshore Community College at Ozone Park at 10Mbps
- Redesigned the WAN for the nearly all participants in Lafayette, Baton Rouge, New Orleans, Monroe, Alexandria, and Shreveport
- Established service to Xavier at two 10Gbps
- Relocated the LONI PoP at McNeese State University
- Upgraded the LSU Dorms to 10GE connection
- Upgraded NIMS to 70Mbps
- Established service to LSU Alumni Hotel and Conference Center at 20Mbps
- Established DR service for Southeastern State University at La Tech
- Completed fiber build to Nicholls State University
- Completed fiber build from Xavier to DOTD
- Completed fiber build from LSUHSC-NO to Tulane
- Completed fiber build with DOTD along Nicholson Drive from LSU to their Hub #1.
- Installed Juniper routers and switches at LSU and LSUHSC-NO
- Installed Ciena photonics and Ethernet switches at LSU, LSUHSC-NO, Xavier and Nicholls
Enrollment Management

Graduate and Undergraduate Admissions - Migrated Graduate Admissions and Undergraduate Admission applications from their legacy platforms to a single, more robust 3rd party software (Hobson’s Radius, hosted by Hobson).

LSU Online - Implemented new processes to enable undergraduate students to receive a post baccalaureate certificate in Construction Management.

Student Advocacy & Accountability (SAA) - Implemented a new process to integrate enterprise systems with a 3rd party software solution, Maxient (hosted by Campus Labs), used to monitor and track student’s judicial concerns.

Student Organizations - Implemented a new process to integrate enterprise systems with a 3rd party software solution, Collegiate Link (hosted by Campus Labs), used to manage student organizations and to encourage growth and development as students engage in co-curricular activities.

Student Resignation - A new workflow application was built to automate a previously manual student resignation process.

Student Retention - Implemented a new process to integrate enterprise systems with a 3rd party software solution, Beacon (hosted by Campus Labs), used to monitor and track student retention.

Student Scheduling - Modified scheduling group assignments for the Office of the University Registrar. The new process will proportionately assign students to their scheduling groups and provide correspondence to students on their scheduling times.

Finance and Human Resources

Asset Management - A new inventory management system, AMS Asset Management Software (hosted by AssetWorks), has been installed to assist in the maintenance of the University’s equipment inventory. Designed to replace the legacy ERI application, AMS connects with the university’s Identity Management and Security Access Management systems for roles/permissions, and the Chart of Accounts system for account validation and asset assignment.

Secure Credit Card Processing - Global Gateway e4, a PCI compliant internet portal hosted by First Data, has been implemented to securely process credit card payments for enterprise goods and services. Integrations of GGe4 with the Accounts Receivable and General Ledger systems allow for efficient posting of deposits.

Online Communications

Strategic and Administrative Web Sites – In collaboration with the Office of Communications & University Relations, 23 new or redesigned University web sites went live in 2014.

Faculty Web Sites - This year the University expanded its use of WordPress to faculty. There are currently 39 faculty sites implemented in WordPress.

Legacy Retirement - Continued to work on the migration of web sites hosted with legacy technology into other more modern content management solutions. An additional 4 sites were migrated “as-is” to WordPress from retiring technologies. The remaining 11 sites still live are in the process of migrating content to modern solutions.

Residential Life

Housing Management - This year the Department of Residential Life implemented a new housing management system, StarRez. Several data interfaces were developed to migrate historical records to the new system and to enable the bi-directional movement of information between StarRez and other enterprise information systems. In addition, the legacy “RES” Residential Life system was decommissioned.

System Modernization

Mainframe Job Run Request System - A new web-based application was built for requesting mainframe jobs, providing ease of use and additional control, flexibility, and accuracy.
**New Supercomputers**

Thanks to the recent investments, LSU researchers have access to two of the 100 most powerful supercomputers in the world. LONI’s QB-2 ranked #46 and LSU’s SuperMIC ranked #88 in the world’s November 2014 Listing of Top 500 Supercomputer Sites.

- The SuperMIC cluster provides a peak performance computing capacity of 1.08 Petaflops via Intel Ivy Bridge 2.8GHz processors and Intel Xeon Phi 7120P co-processors. This cluster is 40% allocated to the XSEDE user community and 60% dedicated to the LSU community. This cluster was purchased with a National Science Foundation MRI grant. This cluster enables the development and use of codes using Intel Phi processors which is a new trend in the computational industry due to their exceptional computation power when compared to a normal CPU.

- QB-2, LONI’s newest HPC cluster is a state-of-the-art upgrade to the original QueenBee cluster. QB-2 is a 1.5 Petaflop peak performance NVIDIA GPU accelerated cluster utilizing Intel Ivy bridge 2.8 GHz processors. This cluster, which is available to LONI member institutions including LSU, provides a significant improvement in the computation capability of LONI and the State of Louisiana.

Information Technology Services continues to make enhancements the campus’s infrastructure and improve its network.

- Backup Internet drain installed in diverse path on campus.
- Backup wireless router capacity quadrupled for speed and memory.
- Data Center router redundancy instituted.
- Deployed two firewalls as part of a layered security approach, with plans to implement additional firewalls in the future.
- Implemented new replication technologies which allow for entire applications stacks to be replicated to multiple LSU datacenters.
- Planned and implemented IaaS (Infrastructure as a Service) services for the campus to include storage and processing capacity which is offered to the campus.
- Deployed IPv6, the newest Internet protocol system, campus wide.
Expenditures FY 13-14
$35,586,321

Salary & Benefits
$14,943,314

Operating
$13,229,552

Capital
$3,203,149

OTM
$2,387,163

Institutional
$1,507,647

Facility Services
$315,495

- Salary & Benefits
- Supplies, software, maintenance, training for ITS; Campus cellular charges; LOUIS subscriptions
- Payments to OTM for internet bandwidth, telephone trunks and lines
- Hardware and software maintenance for mainframe environment and other central campus infrastructure
- Campus network equipment, servers, network switches for work orders
- Cable locates, voice and data trouble ticket charges, generator maintenance