OPENING LETTER

Dear Colleagues:

We are pleased to present this year’s edition of Momentum, LSU Information Technology Service’s 2016 Annual Report.

2016 was a significant year of change, unprecedented in recent times. From the implementation of the Workday Human Capital Management, Finance, and Payroll Systems, to the pending transition of leadership brought about by Brian Nichols’ departure as CIO from LSU, the extent and rate of change has been tremendous. Despite the inherent challenges, LSU ITS maintained its forward momentum as we continued to advance the infrastructure and services we provide to the campus.

This year’s implementation of Workday HCM, Finance and Payroll was highly successful, but certainly not without significant challenges that are ongoing and will be for some time. LSU was the first institution to implement the three systems simultaneously, and did it in record time and within budget. Of course, this accomplishment was not ITS’s alone, but an accomplishment of the entire University. Resources from across all of LSU’s multiple campuses were needed to implement and then support the new Workday system post “Go Live”. Personnel from functional areas within Finance and Administration served as project leads, and comprised the functional teams responsible for configuration, implementation, and roll out, and will form the organizational nucleus that will provide future support for the systems.

Amazingly, progress was made on other fronts as well. ITS was able to roll out an updated Moodle 3 learning management system, implement Service Now business process management services to support and extend Workday, and relocate disaster recovery resources from Baton Rouge and Ruston to Shreveport. Efforts to upgrade the campus’s networking infrastructure have continued and aging servers and access points have been replaced through-out campus. Further efforts are underway to modernize and replace our home grown, legacy network registration and management system, “NetReg”, anticipated to be replaced early next year.

Both of us believe that the new year will bring many more opportunities and changes, and we look forward to those changes with great expectations for LSU. New cost effective measures are presently being explored to update the campus telephone system in the coming years. A new identity management system will be sought to replace the current mainframe-based system. Finally, a new Chief Technology Officer will be in place in the first quarter of 2017 to invigorate the organization and set a new direction for technology at the University and prepare the University for the next generation of students, faculty, and staff.

Indeed, our hope is that the spirit and realization of change can continue strongly in 2017. That new technologies, policies, practices, innovations, and most importantly, new collaborations, will be brought forth to propel LSU firmly towards the middle of the 21st century.

Sincerely,

John Borne and Cynthia Hadden
Interim Chief Information Officers

BY THE NUMBERS

<table>
<thead>
<tr>
<th>Service</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>USS</strong></td>
<td></td>
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<tr>
<td>Lynda.com</td>
<td></td>
</tr>
<tr>
<td>Total Active Users:</td>
<td>10,590</td>
</tr>
<tr>
<td>New Users in 2016:</td>
<td>1,330</td>
</tr>
<tr>
<td>Avg. Logins per Month:</td>
<td>1,917</td>
</tr>
<tr>
<td>Total Hours Video Viewed:</td>
<td>6,347</td>
</tr>
<tr>
<td>TigerWare</td>
<td></td>
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<tr>
<td>Software package downloads from TigerWare:</td>
<td>55,685</td>
</tr>
<tr>
<td>On The Hub downloads referred from TigerWare:</td>
<td>8,481</td>
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<tr>
<td>Software support instances closed:</td>
<td>268</td>
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<tr>
<td><strong>GROK</strong></td>
<td></td>
</tr>
<tr>
<td>Articles in GROK:</td>
<td>8,285</td>
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<tr>
<td>New articles created:</td>
<td>1,424</td>
</tr>
<tr>
<td>Article views:</td>
<td>61,986,507</td>
</tr>
<tr>
<td><strong>Help Desk</strong></td>
<td></td>
</tr>
<tr>
<td>Incidents reported to the Help Desk:</td>
<td>38,968</td>
</tr>
<tr>
<td>(1/1/16 - 11/22/16):</td>
<td></td>
</tr>
<tr>
<td>Telephone Calls received:</td>
<td>18,449</td>
</tr>
<tr>
<td>(1/1/16 - 11/22/16):</td>
<td></td>
</tr>
<tr>
<td>93.18% call answer rate</td>
<td></td>
</tr>
<tr>
<td>Average speed to answer:</td>
<td>37 seconds</td>
</tr>
<tr>
<td>Web:</td>
<td>5251</td>
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<tr>
<td>Email:</td>
<td>10,384</td>
</tr>
<tr>
<td>Chat:</td>
<td>788</td>
</tr>
<tr>
<td>In-Person:</td>
<td>414</td>
</tr>
<tr>
<td>92.4% of our customers are satisfied or very satisfied with their service.</td>
<td></td>
</tr>
<tr>
<td>93.0% satisfaction with their Agent/Representative</td>
<td></td>
</tr>
</tbody>
</table>

Maintained and supported 184 multimedia classrooms, including re-imaging over the summer.

Completed 19 individual faculty software request installations.

**UNI**

Network Operations Center
Incidents closed for LSU: 6,516
Incidents closed for LONI: 2,418

**UIS**

New Web sites were created this year (WordPress and OmniUpdate): 73

Led and contributed to the development, testing, migration, and audit of over 1,500 custom LSU Workday reports and data integrations

Completed 450 integrations with legacy systems

**FTC**

Number of workshops: 110
Number of attendees: 728

Number of Footprints tickets closed by FTC staff (Jan ‘16 – Nov ‘16): 2,496

Department visits: 16

Number of instructors using clickers:
Spring 2016: 64
Summer 2016: 5
Fall 2016: 143

Number of courses (sections):
Spring 2016: 107
Summer 2016: 7
Fall 2016: 286
The Faculty Technology Center provides one-on-one and group support to faculty:

- Offered individual and group consultations, assistance, and support by phone, email, walk-in, through Moodle Welcome Course forums, and by appointments.
- Publicized FTC events, services, contact information, and hours of operation utilizing TV displays on myLSU, campus, LSU Today calendar, ITWire, ITS Training calendar, email, flyers and social media.
- Administered the process of clicker use in classrooms (gathered information from instructors, communicated with LSU Bookstore and Multimedia Classroom Support, helped troubleshoot issues as they arose, and provided documentation in GRoK).
- Maintained SRS Clickers Moodle site for instructors using clickers to assist them and updated documentation in GRoK related to TurningPoint.
- Created and updated documentation (tip sheets, quick guides, etc.) for Moodle and other software (Turnitin, Qualtrics, WebEx, VoiceThread, etc.) which are available in GRoK as well as the ITS website.

CUSTOMER SERVICE FOCUS: USS

Teaching & Learning Support
The Digital Imaging & Videos Services group is providing escalated and up-to-date support for classroom lecture capture, streaming video, and web-conferencing technologies.
- Provided audio/video equipment and support, and short notice web streaming (via WebEx) for various groups and departments

The Moodle development team works with ITS staff, outside vendors, and end-users to integrate new and improved technologies into the campus LMS. Changes to Moodle are approved by the faculty-led Moodle Development allocations Committee (MDAC). MDAC coordinated a review of learning management systems available and determined to remain with Moodle, but to research the market again in 2-3 years.

- Rolled out Moodle 3 update
- Moodle includes a native theme that is compatible with all industry-standard mobile applications and devices.

MULTIMEDIA CLASSROOMS & LABS
- The Math Lab was moved from Pleasant Hall to Middleton, which involved transporting and setting up over 260 machines
- Deployed 4 new flatbed scanners to Middleton 141 to replace aging models
- Maintained and supported 184 multimedia classrooms, including re-imaging over the summer.
- Installed Turning Point on 88 multimedia classroom computers.

- Completed 19 individual faculty software request installations.
- Performed Semester Readiness checks on all multimedia classrooms (checked monitors, projectors, computers, document cameras, podiums, and wired connections).
- 24x7 Support: ITS, in collaboration with LSU Online, has researched and selected a vendor to provide a pilot for after hours support that will extend our current support structure and provide phone support 24x7. The 24x7 support went live on July 1, 2016. During this next year the current vendor and the service will be evaluated and a determination made as to the continuation of the service and the vendor.

Teaching & Learning Support
Footprints: Upgraded Footprints to 11.6.7. Evaluated Footprints 12 and 12.1 and it was decided to switch to ServiceNow to better accommodate Work Day and collaboration on campus. Random surveys are sent for closed incidents. The Help Desk manager responds to all feedback. Adjustments are made as necessary to continue to improve the quality of service.

- Speed Geeking Event: Meet Your Match - Tech Tools for Academic Success, the second event was completed by the end of October. After this we will begin offering warranty support for university-owned Apple hardware. The first certification test was successfully completed and the second test was completed by the end of October. After this we will begin offering warranty support for Apple Hardware.

- Apple Support: Contracts have been signed for ITS to begin the process of certifying staff to provide warranty and non-warranty support for university-owned Apple hardware.
- Departmental Support: Regular phone calls and visits with the Technology Support Professionals to assess needs of the departmental IT units, communicate available ITS Services, and leverage expertise. Host annual summer boot camp training sessions for Technology Support Professionals to keep them up to date with new and changing services offered by ITS.
Workday Implementation & Integrations

- LSU completed an 18-month multi-campus project to modernize the University’s information systems, replacing legacy applications with Workday’s Financial Management (Finance) and Human Capital Management (HCM) solutions.
- Partnered with the Office of Bursar Operations to re-engineer and enhance the University’s billing and accounts receivable systems to integrate with Workday, including development of the new CARD (Customer Accounts Receivable and Deposit) application.
- Partnered with the offices of Sponsored Programs and Sponsored Programs Accounting to re-engineer the legacy Sponsored Programs System to integrate with Workday.
- Developed applications that integrate with Workday to audit integration processes.
- Led and contributed to the development, testing, migration, and audit of over 1,500 custom LSU Workday reports and data integrations, in partnership with the offices of Enrollment Management, Finance and Administrative Services, the University Registrar.
- Enterprise Integrations Platform - Developed an enterprise integration platform to enable the integration of Workday data with other institutional enterprise information systems. Completed 450 integrations with legacy systems.
- Prepared and executed over 200 customized conversion extraction modules to produce the data extracts for the P1, P2, P3 and Gold tenant loads.
- Prepared and executed a custom suite of modules used to compare and contrast legacy-to-Workday payroll results in a parallel testing environment.
- Prepared and executed a suite of modules necessary to report and batch process production updates between Gold load and go-live.
- Modified legacy applications for a timely, graceful shutdown in preparation of Workday go live.
- Partnered with Finance and Administrative Services to integrate Workday with security and access management approval applications.
- Partnered with Finance and Administrative Services to integrate Workday with identity and access management applications to ensure staffing terminations are reflected in a timely fashion.
- Partnered with Finance and Administrative Services to implement single-sign-on with the Workday solution.
- Partnered with Finance and Administrative Services to begin automating testing for the Workday solution.
- Partnered with the Office of Institutional Research to enhance enterprise reporting resources by incorporating Workday data and re-engineering enterprise data marts to utilize Workday data.
- Partnered with the Office of Institutional Research to evaluate Workday Insight Analytics.
- Worked with USS to implement and roll-out Service Now to facilitate post-Workday implementation needs. Processed 2000 service requests in July alone.

Departmental Support

- Partnered with the Office of Facility Services to select and implement a new computerized maintenance management system (CMMS), Accruent’s FAMIS Cloud. Work to integrate Workday and FAMIS is underway.
- Partnered with the Office of Strategic Communications to enhance the University’s communication capabilities by implementing OmniUpdate Blog functionality.
- In collaboration with the Office of Strategic Communications, continued to support enterprise web content management solutions for administrative and academic departments and faculty. 73 new sites were created this year.

- As a result of institutional re-alignments, partnered with the Office of Institutional Research to enhance enterprise reporting resources by incorporating LSU Law Center data.
- Partnered with the Office of Institutional Research to automate the process of generating academic Departmental Metrics reports for the Office of Academic Affairs and Deans, previously a manual and time-consuming exercise. This process combines data from existing enterprise data marts, Institutional Research data sets, and Budget & Planning data sets.
- Partnered with the offices of Human Resource Management and Institutional Research to implement Digital Measures, a faculty activity reporting solution.
- Worked with Financial System Services to offer and implement the infrastructure required for a new Supplier Registration application developed in an effort to lessen redundancy of duties.

Student Information Systems

- Modified scheduling priority groups to provide priority scheduling for veterans.
- UIS integrated the new revised SAT and Accuplacer scores into the university’s admissions, orientation and student records systems.
- Implemented a new Financial Aid ISIR process that allowed the retrieval of student’s FAFSA records 5 months earlier which aided in faster Financial Aid student packaging.
- Implemented new Board of Regents (BOR) admission requirements to university admission processes.
- Completed needs assessment for future of student information systems modernization.

Technical Endeavors

- Continued updating and patching applications and server environments with recommended versions.
- Continued efforts to migrate applications from older technologies to more modern platforms.
- Implemented Single Sign-On integration for numerous departments and their applications across campus.
- Performed required software patches to address new security vulnerabilities.
- Upgraded and consolidated our Domino / Lotus Notes server environment and other 3rd party software packages in support of our core legacy ERP web applications.
- Configured new Java Tomcat servers with current software versions in support of Workday integration applications.
- Participated in the yearly IT Disaster Recovery exercise for UIS supported systems and applications.
- Implemented a Pilot Testing environment for future Workday needs.
LOUIS Migration to SirsiDynix’s SaaS Completed

Workday implementation

Kaltura upgrade
Turning Technologies New Licensing Structure and SRS

Vet Med email migration

Adobe Creative Suite no longer available in labs
ServiceNow implemented for Workday support

Legacy Time Clock service ends
Workday HCM, Finance and Payroll go live

Moodle 3 goes live
Email archiving turned on

CIO Brian Nichols leaves LSU for the University of Kentucky
Sumit Jain starts as Chief Information Security Officer

LSUITS offers Apple support for LSU-Owned Machines
Faculty Technology Center relocation underway

Skype for Business Pilot Begins for Faculty & Staff

Learning Management Systems review

Workday Post-Implementation support

24 x 7 Help Desk Support pilot

Back Up site moved to Bossier City
LSU Panopto upgrade
Math Lab moved from Pleasant to Middleton

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24 x 7 Help Desk Support pilot
 Goal IV: The University shall maintain a robust and plentiful IT environment to enable faculty teaching and student learning.

LSU ITS continued its efforts to maintain up-to-date multimedia classrooms and labs with funding from the Student Technology Fee. Moodle 3 was successfully released this past summer. The Moodle Development Advisory Committee formed a Learning Management Systems (LMS) review committee to consider the other available LMS tools available to higher education. They recommended continuing with Moodle, making enhancements to Moodle based on emerging features in the market, and reassessing the market in another 2-3 years.

Goal V: The University shall provide easy and ready access to IT infrastructure and services. Thanks to a partnership with LSU Online, the LSU ITS Help Desk has contracted with an outside vendor to provide after-hours call center support. The Student Technology Fee funded student-centered wireless access points and new services like Workday are created with a mobile-first strategy in mind.

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.

2016 was a momentous year for the modernization of its suite of services. In July, Workday Human Capital Management, Finance and Payroll systems went live for LSU and its aligned campuses, with the exception of the Health Sciences centers.

GOAL VIII: Information Technology Services (ITS) shall provide an exemplary customer service focus in all of its work.

LSU ITS released ServiceNow in support of Workday. Efforts are underway to investigate the possibility of this product replacing the two existing ticketing and network request systems. Such a large scale decision is tabled until the new Chief Technology Officer is on-board in 2017.

Additionally, the FTC piloted a satellite center in Frey until staffing numbers dropped making a second location to Middleton an impossibility. Subsequently, the main Middleton Library site closed at the end of 2016 due to changes in the Library’s architecture and service needs.

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

LSU ITS continues to meet regularly with the existing Faculty IT Governance Council and the Moodle Development Advisory Committee (MDAC) to discuss evolving needs and changes to services. In 2016, the MDAC formed the Learning Management Systems (LMS)Review Committee which more broadly assessed the LMS options currently on the market and developed a list of potential enhancements to Moodle.

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

LSU ITS continues its use of social media, e-mail and Web services to communicate new services, changes to services and educate the campus about phishing attempts. There have been several outreach efforts to departmental technology professionals in advance of the IP Access Management changes that are scheduled for early 2017.
The Louisiana Library Network

Fiscal Year 2015

For 23 years, LOUIS: The Louisiana Library Network has served as the foundation on which Louisiana academic libraries support research, teaching and learning. Diminished funding for higher education has made LOUIS more important than ever as LOUIS delivers value equitably, collaboratively, and cost-effectively.

LOUIS saves money for the taxpayers of Louisiana by collaborating on services and purchases for academic libraries. Last year LOUIS purchased over $38 million worth of services and resources on behalf of Louisiana’s academic libraries for $4.146 million, a savings of over $33 million. Since 1992, LOUIS has saved the state of Louisiana over $255 million. Additional savings are a result of LOUIS acting as the purchasing agent for select libraries, requiring purchases. Via this service, LOUIS purchased approximately $15 million worth of resources for these subsets for $1.98 million. A savings of over $13 million. All total, LOUIS initiatives saved the state of Louisiana and all institutions in higher education more than $46 million. Savings continue to increase as libraries ask LOUIS to negotiate more on their behalf.

A central support staff of 9 FTE located in Information Technology Services at LSU reports to the LALINC Executive Board for operational and strategic direction and the LSU Chief Information Officer for administrative direction. The LOUIS central staff is in place to execute the will of the Board. Based on recommendations from LALINC committees, task forces and working groups, and approval from the Board, LOUIS staff installs, upgrades, configures, consults, supports and negotiates prices for the services, technologies and resources on behalf of the consortium. With over 125 years’ combined experience, LOUIS staff has an unequaled level of institutional knowledge and expertise which equates to fast and efficient implementation of new solutions and problem solving. While membership fees do rise due to the market, members support paying membership fees due to the exemplary level of service provided.

One objective in the LOUIS Strategic Plan is to employ best practices for infrastructure, architecture and security. This includes an annual review of the current Integrated Library System (ILS), SirsiDynix Symphony, in terms of projected growth costs, impact on constituents, and the ability to integrate with other software in order to deliver a comprehensive Library Services Platform (LSP). Considering new technologies being developed by SirsiDynix, recent interest in migrating to Oracle for Unicode and the aging Symphony hardware in place today, LOUIS did a thorough review in 2014-15 to evaluate options to improve the infrastructure which has been hosted by LOUIS since 2001. The evaluating task force recommended a migration to the SirsiDynix Software as a Service (SaaS) comprehensive hosting service running Linux with Oracle and Unicode. Loyola University became part of this project when they made the decision to migrate their locally hosted Symphony software to LOUIS. The first of 35 LOUIS Symphony sites migrated in June 2015, and the last site migrated in early 2016. Migrating Symphony to SaaS has allowed LOUIS to rollout SirsiDynix’s latest BLUEcloud Campus products, including BLUEcloud Cataloging, BLUEcloud PAC, BookMyne, and BLUEcloud Analytics, to better serve the needs of member libraries.

In support of all initiatives, and in conjunction with the contract requirements, the following is a list of 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, Work/Rows, BlueCloud)
   - SirsiDynix Symphony, the library staff client and the electronic catalog
   - SirsiDynix e-Library, the user interface
   - Implemented Our Lady of Holy Cross 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
   - Negotiated and provided technical input to design course management integration via Discovery into Moodle/Blackboard
   - Purchased e-Learning seats for online courses
   - Developed and documented Best Practices for Infrastructure, Architecture and Security
   - Hosted 2 System Administrator Meetings
   - Addressed 562 FootPrints incidents
   - Worked with the Statistics Task Force to identify needs and issues related to gathering and compiling stats and recommended next steps to address needs
   - Negotiated new pricing, terms and additional services for the SirsiDynix contract
   - Negotiated and initiated the move from the locally hosted ILS software to SirsiDynix Software as a Service (SaaS) including Unicode and Oracle, with substantial savings to consortium and strategic functionality and support; converted 1,100 custom reports to SaaS

B. Electronic Resources
   - 83 scholarly electronic resources (academic journals, full-text and abstracts, citation databases, etc) via 12 provider partners were licensed for all LOUIS members
   - 33 scholarly electronic resources (academic journals, full-text and abstracts, citation databases, etc) via 19 provider partners were licensed for various subset of LOUIS members
   - 32 resources were evaluated and determined to not meet the needs of LOUIS members
   - 7 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 125 FootPrint incidents
   - Addressed 40 EZproxy incidents
   - Negotiated new pricing for all electronic renewals at an average 3% uplift for the year.
   - Moved all LOUIS members to OCLC’s new FirstSearch platform called WorldCat Discovery Service (WDCS)

C. Interlibrary Loan (OCLC/Atlas, ILLiad borrowing and lending)
   - Implemented Loyola University Law School

- Attended ILLiad International Conference
- Hosted North and South ILLiad User Group Meetings
- Migrated to new Atlas training platform
- Upgraded to Version 8.5
- Addressed 119 incidents
- Provided customization services
- Initiated an InterLibrary Loan Assessment survey for North/South meetings
- 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 67 FootPrint incidents
- Initiated an EBSCO Software Suite survey for North/South meetings and training
- Initiated conversion from AtoZLinkSource to FullTextFinder by EBSCO

For 23 years, LOUIS: The Louisiana Library Network has served as the foundation on which Louisiana academic libraries support research, teaching and learning. Diminished funding for higher education has made LOUIS more important than ever as LOUIS delivers value equitably, collaboratively, and cost-effectively.
Under the joint management of the Louisiana Board of Regents and Louisiana State University, the Louisiana Optical Network Initiative (LONI) is an initiative whose purpose is to provide postsecondary education research institutions, the postsecondary education community, and the state of Louisiana with a high-speed advanced data and computing network capable of supporting technological and scientific research, while advancing the delivery of education services and stimulating economic development across the state.

**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 FY16. This year we divided subscribers between Participants, Partners and Affiliates. A participant is a public postsecondary educational institution under the Board and Regents as well as a private postsecondary institution under the Louisiana Association of Independent College and Universities. An affiliate is further broken down to a state government, quasi-government, local government, universities. An affiliate is further broken down to a state educational institution under the Board and Regents by the postsecondary educational institution under the Board and Regents as well as a private postsecondary institution under the Louisiana Association of Independent College and Universities.

### High Performance Computing (HPC) Operations

- **In FY16,** the LONI Management Council continued to recognize the importance of having a long-term HPC renewal plan and financing strategy. As a result, the LONI HPC Team has successfully decommissioned the five smaller satellite systems at Tulane, ULL, UNO, SUBR and LaTech. The HPC Team has retained the smaller satellite system at LSU as a testbed to perform proof-of-concepts for new operational controls and processes.
- **In addition,** in FY16 we have observed the run-time limit of Q32 of at least 90% CPU busyness in a given quarter as well as the nearly over-allocation of wall-clock time of the CPUs. The LONI HPC Team and LONI Resource Allocation Committee are monitoring the events closely to determine if a policy change should be recommended.

### Research/Grants and Special Projects/Activities

- **In FY16,** work continued on many research and grant awards that were previously secured based on the LONI resources and capabilities available to researchers. Major projects underway during FY16 include:
  - **Carry-over activities from FY15**
    - $489,726 - NSF, CC-NIE Network Infrastructure: CADIS -- Cyberinfrastructure Advancing Data-Interactive Sciences at LSU
    - $488,655 - NSF, CC-NIE Networking Infrastructure: Dedicated High-Speed Science Network at Tulane University
    - $947,860 - NSF, CC-NIE Integration: Bridging, Transferring and Analyzing Big Data over 10Gbps Campus-Wide Software Defined Networks at LSU
  - **New activities from FY16**
    - $489,700 - NSF, CC*IIE Networking Infrastructure: Riverfront Campus Research Network at Tulane University
    - $491,513 - NSF, CC*IIE Networking Infrastructure: Cyberinfrastructure - Creation of Science DMZ at UL Lafayette

- **In FY16,** the Board of Regents, LSU, and Tulane continued funding network enhancements under LONI 2.0 with a combination of state appropriations and NSF, CC-NIE grant funds.

### ADVANCING THE NETWORK: LONI/HPC

#### Network

- Network upgrades continue throughout the campus including network to the desktop upgrades as well as core network switches and routers.
- The wireless network continues to be upgraded in multiple areas throughout campus thanks to a grant from the STF, as well as other funding sources. The locations funded by STF were approved by the STF.
- VoIP telephones continue to be deployed throughout campus.
- We continue to maintain and upgrade aging fiber cables as needed. New fiber routes have been completed.
- We have upgraded the server infrastructure and storage serving the campus.
- Backup services for the campus were moved from the downtown location in Baton Rouge to a secure and appropriate location in Shreveport. All systems were retested and found to be working as planned.

#### HPC

- HPC continues to invest in software, compilers, development tools, and training for LSU researchers to enable them to develop computational codes to fully utilize the new technology processor accelerators available in the new clusters like SuperMIC.
- We have partnered with CCT to build a software defined network (SDN) available for specific research needs.
- HPC has provided a comprehensive portfolio of training tutorials and workshops for the High Performance Computing community at LSU and through LONI the state of Louisiana. Training tutorials were provided weekly throughout the semester at LSU and several workshops providing multiday instruction on specific HPC technology areas are also held this semester.

#### Projects in progress

- ITS has embarked on a new project to combine multiple monitoring/configuration applications (including OpenNMS) to establish a standard application that will be used to provide metrics to anyone interested.
- Working on the upgrade of the IPAM system with a planned rollout early 2017.
- UNI has embarked on a project to update/upgrade the fire protection system for the Frey building. The goal is to have the project complete by the end of year 2017.