

Library IT Annual Report – FY16

The beginning of this report consists of a summary of key accomplishments, challenges, and goals across the various groups in Library IT. The summary is the core of the report. Following the summary are appendixes which contain the detailed reports for each individual group in Library IT.

Summary

Selected accomplishments from FY16

Help Desk

- Initiated and coordinated ongoing review of IT commitments for production services;
- Developed weekly OTRS reports for IT queues to identify tickets that require follow-up or special attention;
- Coordinated annual renewal process for Library licensed software;
- Investigated data analysis tools for use in the Library as part of a small working group with Jen-chien Yu and Jim Hahn.

Workstation and Network Support (WNS)

- Replaced over 120 Library Faculty, staff, and public workstations via hardware lifecycle management, leveraging Microsoft SCCM to image and deploy applications to new workstations;
- Co-managed the Library Computing Technology Allocation Program (CTAP), including developing recommended standards, meeting with Library Faculty and AP staff, and successfully fulfilling 40 requests;
- Purchased, configured and installed technology equipment in the Grainger IDEA Lab, including 2 presentation areas, 2 mobile computing labs, 8 collaboration tables, 3 3-D printers, and the workstation powering the 16-display video wall.

Infrastructure Management and Support (IMS)

- Migrated all production IT virtual servers/services to the Technology Services Virtualization Shared Service;
- Developed and deployed improved server management practices, including expanding Puppet for auto configuration management, auto documenting servers at time of provisioning, and standard practices for server patching/updates;
- Coordinated support for new services, including: Omeka, Research Data Services, Medusa, Illinois Research Connections, ArcGIS, and Illinois Data Bank;
- Developed and implemented project management tools for use in the Library.

Web Team

- Developed improvements of workflow management processes for code management, testing, optimization, versioning, and deployment for Gateway and WordPress content;

- Deployed first WordPress CMS sites (Interlibrary Loan and “top-level” content, linked under “More” options in site-wide navigation from the gateway);
- Led development of mockups, prototyping, and usability testing of new gateway and WordPress templates;
- Developed and deployed iterative improvements for usability and accessibility for the Library Gateway.

Software Development Group

Developed or enhanced numerous software applications for the Library including:

- System to manage applications for graduate assistantships,
- System to manage the import of data into Illinois Researcher Connections,
- Developed a 14+ million record database for HTRC bibliographic records,
- Added new collections to the BibLeaves specialized bibliographic database,
- Developed an SFX reporting system to assist with e-resource acquisition decisions, and
- Numerous other specialized applications which are listed in the detailed SDG report.

Scholarly Communications and Repository Services

- The design, development, and initial release of the Illinois Data Bank was completed.
- The new Medusa Digital Library system was developed and released as beta. So far it hosts 10 collections and over 11,000 items, many migrated from CONTENTdm.
- The Medusa Collection Registry is in production use, but is also still under very active development. The amount of data stored has doubled since last year.
- Significant work has been completed in integrating open source tools to support the Publishing Without Walls grant.
- Bill Ingram working with SDG developers has provided significant support for the Illinois Researcher Connections (IRC) service.

Challenges and Gaps

- Onboarding and managing hourly workers (Academic Hourly, student assistants, Extra Help) to fill the growing demand for IT services while retaining high quality of customer service;
- Working with aggressive timelines for project completion- including one Storage Area Network (SAN) retirement required before end of FY16
- Requirement to support a growing catalog of services with increased uptime and support expectations;
- Ongoing procurement challenges related to reliable and timely acquisition of hardware and software;
- Working with multiple service owners to better secure and support database driven applications;
- Intermittent unplanned critical projects requiring reassignment of unit resources to debug and address issues;
- Continued gap between the current design and functionality of the Library content management system and functional requirements of Library website users.

- Finding resources to focus on high-priority Library initiatives, such as IRC, while also keeping up with the demand for smallish specialty software projects, especially those which are grant-funded or are pursuing grant funding.

Key goals and initiatives for FY17

Help Desk

- Implement and migrate Library content to Library staff intranet website;
- Grow the Help Desk's role as liaisons to non-technical Library faculty and staff, fostering relationships on shared Library knowledge and experience;
- Explore functional options for improved software license management and implement a viable solution;
- Continue ongoing evaluation of effectiveness and value for emerging technologies within the Library, including data analysis and visualization tools.

Workstation and Network Support (WNS)

- Investigate and deploy campus tools for network address management (IPAM);
- Continue work on NetInfo replacement. Substantial completion by end of FY17;
- Provide technical consultation and expertise for the support of equipment in the Grainger IDEA Lab;
- Identify and implement end point management service (SCCM) improvements to streamline the process of software deployment and updates;
- Evaluate and update technology equipment in Library public, learning, and conference spaces, including improvements to video conferencing, display, and scanning technologies.

Infrastructure Management and Support (IMS)

- Increase adoption of procedures and best practices for application and software life cycle management;
- Improve business continuity and disaster recovery procedures, including load balancing critical web services (reverse proxy, Easy Search, Library Gateway, CMS, etc);
- Implement a centralized web log and analytics tool to replace weblogstats and better manage our web and application logs;
- Audit database and web applications for security, data classification, and run-time errors due to upgraded software versions;
- Bring Windows configuration management up to the standards set by current Linux configuration management tools, such as Fabric and Puppet.

Web Team

- Transition 25-50+% of library units from OpenCMS to WordPress CMS;
- Iterative improvements to WordPress CMS, including development of additional templates, custom post types, and plugins to offer additional features and functionality;
- Implementation of centralized web logs, including automated deposition, tracking, archiving, and analyzing.

Software Development Group

- SDG will continue to maintain and enhance existing applications and be responsive to special requests.
- Probable new and significant projects in the coming year:
 - Working with the IRC coordinator and the manager of SCARS, continue to support for the Illinois Researcher Connections
 - GFA Oak Street software replacement
 - Migration from Archon to ArchivesSpace
 - Increased support for Web Team middleware and web APIs
 - Increased support for HTRC

Scholarly Communications and Repository Services

- Increased options for deposit into the Illinois Data Bank, especially for larger files.
- Retire CONTENTdm after migrating all its content into the new Medusa Digital Library.
- Continued maintenance of the IDEALS repository and the Vireo ETD system.
- Officially launch the Illinois Open Publishing Network.
- Continued improvements in our ability to manage preservation data at scale, including storage system improvements and the horizontal scaling of various micro-services.
- Finish the business process support database for IRC, develop improved means for harvesting citations for non-STEM researchers, and explore other uses for IRC, such as populating open access articles into IDEALS.

Appendices

[Library IT Help Desk Annual Report](#)

[Library IT Workstation and Network Support \(WNS\) Annual Report](#)

[Library IT Infrastructure Management and Support \(IMS\) Annual Report](#)

[Library IT Web Team Annual Report](#)

[Library IT Software Development Group \(SDG\) Annual Report](#)

[Library IT Scholarly Communication and Repository Services \(SCARS\) Annual Report](#)

Library IT Help Desk Annual Report

Date: 08/17/16

Manager: Megean Osuchowski

I Unit Narrative

1. Major activities and accomplishments of the unit in FY16 (July 1, 2015 to June 30, 2016):
 - Processed laptops for the Computer Technology Allocation Program and laptop assessment
 - Developed weekly OTRS reports for IT queues to identify tickets that need attention
 - Added some OTRS reporting information to CMS training during GA training fall 2015
 - Updating library website links including SFX, uiuc.edu, mail forms, and former CITES links
 - Initiated service commitment reviews
 - Distinguished patron and staff IT content to separate into public and staff websites
2. Major challenges faced by the unit during FY16:
 - Potential staffing changes: Drew Kenton and Lillian Helms interviewed for other positions, Lillian Helms's resignation at the end of FY16, and Academic HR would not approve any academic hourly job description over six months.
3. Significant changes to unit operations, personnel, service profile, or service programs:
 - Staffing changes and dependence on temporary staff for a critical role in the unit.
4. Articulate (with appropriate examples) the ways in which the unit and/or its members contributed to Library-wide programs, including information services, instructional services, scholarly communications, assessment, collection management, digital content creation, staff training and development, diversity efforts, and public engagement:
 - Expanded iPad pilot program for staff use to ACES
 - Coordinated pilot implementation of UGL's electronic loan form for loanable technology to improve efficiency at the UGL circulation desk
 - Investigated library needs and feasible platforms for data visualization and analytics projects to aid assessment of operational data
 - Identified useful and licensed programs to make available on authenticated public machines for patrons
 - Added a loanable laptop with Scholarly Commons software to the Help Desk loanable tech pool to make data software like Tableau, Nvivo, GIS, and other more widely available in the library
 - Demonstrated accessibility technology available in the library in November 2015, including screen readers and other assistive software.
 - Coordinated the beginning of a staff website project to improve the library's web presence

- Worked with the Technology Prototyping Service to explore potential opportunities for OTRS development
5. Progress made on Unit Annual Goals for FY15 (as enumerated in the FY14 Unit Annual Report):
- *Serve as liaisons to non-technical library faculty and staff, building relationships on shared Library knowledge and experience.*
 - Continue to serve as liaisons to non-technical library faculty and staff by participating in Library committees and engaging faculty and staff with tech-dependent projects to build relationships on shared Library knowledge and experience.
 - Continue coordination with WNS and Facilities to ease the transition of incoming employees into new systems and university accounts
 - *Continue iterative development of IT unit and Help Desk web presence.*
 - Re-organize service commitment page and implement review for current and additional service commitments
 - Explored knowledgebase options to adopt such as OTRS and answers.illinois.edu
 - Separated IT public/patron content from staff content
 - Began library staff website project
 - *Continue Lync/Skype for Business and RightFax user education and support.*
 - Worked with Technology Services to identify and explain the use of Centrex lines in the library, as Technology Services has plans to retire its management of those lines
 - Successfully migrated interested units to RightFax and developed RightFax documentation
 - *Coordinate evaluation of effectiveness and satisfaction for emerging technologies within the Library such as data analysis and visualization tools.*
 - Completed environmental investigation of library needs and available platforms for data analysis and visualization tools
 - Identified solutions to track public computer usage in library
 - *Collaborate with CARLI and ExLibris to solve reoccurring Voyager issues.*
 - Continued to document and share Voyager bugs with CARLI. Identified increased activity in error messages when Voyager ledger is updated.
 - *Explore sustainable options for OTRS development.*
 - Technology Prototyping Service developed a web form to submit OTRS tickets with the ability to CC people and change displayed form fields based on selected queue. The form does not require change of any OTRS platform files.
 - *Explore viable options for improved software license management.*
 - Continue to work with the Business Office on license renewals, but no advances in license management systems
 - *Improve IT training for incoming GAs.*
 - Explaining how to submit tickets during CMS training during fall GA training reached a larger audience than appealing to units, and getting our own session in the schedule was unfeasible.
6. Articulate Unit Annual Goals for FY17:
- Serve as liaisons to non-technical Library faculty and staff, building relationships on shared Library knowledge and experience.
 - Continue iterative development of IT unit and Help Desk web presence.

- Continue Lync/Skype for Business and RightFax user education and support.
- Coordinate evaluation of effectiveness and satisfaction for emerging technologies within the Library, such as data analysis and visualization tools
- Collaborate with CARLI and ExLibris to resolve reoccurring Voyager issues.
- Explore viable options for improved software license management.
- Implement and migrate library content to library staff website

II Statistical Profile

1. Hardware and Software Support Profile

- Lync support
 - 547 Lync accounts supported
 - 9 Conference phones
 - 6 Private Lines
 - 84 Resource accounts
 - 448 Faculty/staff accounts
- Loanable technology inventory overview
 - 196 equipment loans processed in FY16
 - Loaner inventory
 - 1 Blackberry
 - 30 Laptops (20 PCs & 10 Macs)
 - 5 iPads
 - 1 Lync speakerphone
 - 2 Microphones
 - 9 Headset microphones
 - 5 Projectors
 - 1 Clicker set of 30
 - 2 Training headphones
 - 3 External CD/DVD burners
 - 3 Video cameras
 - 2 Voice recorder kits
 - 3 Webcams

2. Personnel

- List, by name, all faculty, Academic Professionals, civil service staff, and Graduate Assistants assigned to the unit in FY15.
 - Megean Osuchowski – Help Desk Coordinator
 - 1.0 FTE (7-1-15 to 6-30-16)
 - Helen Zhou – Electronic Access Specialist
 - Academic Professional
 - 0.5 FTE (7-1-15 to 6-30-16)
 - Drew Kenton – IT Support Associate
 - Civil Service
 - 0.2 FTE (7-1-15 to 6-30-16)
 - Lillian Helms

- Help Desk Support Specialist
 - Academic Hourly
 - 1.0 FTE (7-1-15 to 6-30-16)
- Provide overview of physical working space for unit:
 - Help Desk space includes 4 desks, a public workstation, a workstation configured to an off-campus network, and various storage resources at the west entrance to the Library IT offices in 424.
- Specify the amount of the unit's FY15 Student Assistant wage budget and Student Assistant FTE.
 - The Help Desk did not have a Student Assistant wage budget for FY16. Student Assistants were shared with WNS and paid with printing revenue.

3. User Services

- IT support requests (OTRS tickets)
 - Total tickets that were resolved or routed by the Help Desk: 1989
 - Total number of tickets requesting Lync support: 154
 - Voyager account creation requests: 107
 - Processed 1620 public printing refunds.
 - Processed 317 new hire or job ended permission-related requests.
 - CTAP requests: 39

Library IT Workstation and Network Support (WNS) Annual Report

Date: August 22, 2016

Manager: Lee Galaway

I Unit Narrative

1. Major activities and accomplishments of the unit in FY16 (July 1, 2015 to June 30, 2016):
 - Replaced more than 120 Library faculty, staff and public access workstations as part of our normal hardware refresh.
 - Purchased, configured and installed 20 new laptops in the Undergraduate Library loaner pool.
 - Continuation of Library ITs Computer Technology Allocation Program (CTAP)
 - Researched and recommended hardware standards
 - Purchased and configured new products for our CTAP demo pool
 - Met with CTAP clientele to determine what hardware best fits their needs
 - Successfully filled 39 CTAP requests
 - Purchased, configured and installed all equipment for the Grainger IDEA Lab
 - Planar 16 display video wall with HP workstation
 - Presentation space with two 84" LED 4k displays and HP workstation
 - Presentation space with one 84" touch screen LED 4k display and HP workstation
 - 5 mobile units with HP workstation and 55" LED 4k displays
 - 5 mobile units with HP workstation and 65" LED 4k displays
 - 8 collaboration tables with 42" LED displays and video switching
 - 3 TAZ 3d printers
 - 2 mobile carts with 58" LED displays for patron laptop use
2. Major challenges faced by the unit during FY16:
 - Balancing daily trouble tickets with project work.
 - Leveraging hourly workers to fill growing demand for unit services
 - Training new staff and students while maintaining a high level of service.
 - Regular hours and productivity for our student staff continues to be a problem.
3. Identify significant changes to unit operations, personnel, service profile, or service programs:
 - Academic Hourly employee turnover:
 - Jason Harvey continues to work with WNS approximately 10 hours per week.
 - Jill Anne Nakayama left in August 2015.
 - Jackson Deremiah joined WNS as an Academic Hourly in August 2015.
 - Student Hourly employee turnover:

- Additions
 - Jacky Zhao (September 2015)
 - Cameron Belk (May 2016) extra help for summer
 - Departures
 - Luke Spalding (July 2015)
 - Sunny Singh (August 2015)
 - Susan Zhao (August 2015) temporary – study abroad
 - Nick Kenealy (December 2015)
 - Jake McCombie (January 2016)
 - Anaga Vijaykumar (February 2016)
 - Claire Lee (May 2016)

- 4. Articulate (with appropriate examples) the ways in which the unit and/or its members contributed to Library-wide programs, including information services, instructional services, scholarly communications, assessment, collection management, digital content creation, staff training and development, diversity efforts, and public engagement;
 - A fundamental responsibility of WNS is the support of the entire workstation and network infrastructure that is required by nearly every Library function.

- 5. Review progress made on Unit Annual Goals for FY16 (as enumerated in the FY15 Unit Annual Report);
 - GLID2 design, configuration, implementation
 - *Completed*
 - Hardware refresh for Technical Services (CAM)
 - *Completed*
 - Identify technology needs and update equipment in Grainger Commons and conference rooms 329 and 335
 - *On hold due to budgetary concerns and time constraints*
 - Evaluate and update equipment as needed in Library public spaces, instructional spaces and conference rooms
 - *On hold due to budgetary concerns and time constraints*
 - Identify and implement SCCM improvements for software deployment
 - *Completed*

- 6. Articulate Unit Annual Goals for FY17:
 - Continue hardware (workstation and laptop) refresh cycle as budget allows.
 - Investigate and deploy campus tools for network address management (IPAM).
 - Continue work on NetInfo replacement. Substantial completion by end of FY17.
 - Install at least 6 new collaboration tables in public spaces (5 in Undergrad, 1 in Grainger).
 - Move Literatures and Languages to Room 200 and Classics to Room 225.
 - *Substantially completed by 8-1-16.*
 - Refresh all public printers in Library spaces.
 - *Substantially completed by 8-20-16.*
 - Move CAM to Room 1.
 - Move CMS to Oak Street 3rd floor.
 - Install and implement new technology in the repurposed Room 220.

II Statistical Profile

1. Hardware and Software Support Profile

- Hardware
 - 310 public access desktop PCs
 - 44 circulation desk PCs
 - 37 public access printers
 - 552 faculty/staff desktop units (PC and Mac)
 - 120 networked staff printers (laser, receipt and MFP)
 - Thousands of network ports
 - 33 network subnets maintained
- Core Software
 - Windows 7
 - Adobe Acrobat Pro
 - CARLI Voyager 7.2.5 (Acquisitions, Catalog, and Circulation)
 - Internet Explorer
 - Google Chrome
 - Microsoft Forefront Virus Protection
 - Microsoft Lync 2013
 - Microsoft Office Professional 2013
 - Mozilla Firefox
 - Notepad++
 - OCLC Connexion
 - Windows Media Player

2. Personnel

- List, by name, all faculty, Academic Professionals, civil service staff, and Graduate Assistants assigned to the unit in FY16.
 - Lee Galaway – Manager Workstation Network Support
 - Academic Professional
 - 1.0 fte
 - 7-1-15 to 6-30-16
 - Scott Clemens – Research Programmer
 - Academic Professional
 - 1.0 fte
 - 7-1-15 to 6-30-16
 - Eric Mosher – Research Programmer
 - Academic Professional
 - 1.0 fte
 - 7-1-15 to 6-30-16
 - Rhonda Jurinak – Technology-Enhanced Spaces Support Specialist
 - Academic Professional
 - 1.0 fte
 - 7-1-15 to 6-30-16
 - Drew Kenton – IT Help Desk Specialist
 - Civil Service
 - 0.5 fte
 - 7-1-15 to 6-30-16
 - Jason Harvey – Academic Hourly
 - Academic Hourly
 - 0.25 fte

- 7-1-15 to 6-30-16
 - Jill Anne Nakayama – Academic Hourly
 - Academic Hourly
 - 1.0 fte
 - 7-1-15 to 8-15-15
 - Jackson Deremiah – Academic Hourly
 - Academic Hourly
 - 1.0 fte
 - 8-16-15 to 6-30-16
- Provide overview of physical working space for unit
 - Workstation Network Support personnel occupy approximately 387 square feet of office space in Room 424 of the Main Library. Additionally, 315 square feet in Room 424a, 135 square feet in Room 438 and 287 square feet in Room 19c are used for hardware storage and maintenance.
- Specify the amount of the unit’s FY15 Student Assistant wage budget and Student Assistant FTE.
 - Jackson Deremiah (7-1-15 to 8-15-16)
 - Colin Althaus (7-1-15 to 6-30-16)
 - Sunny Singh (7-1-15 to 8-15-16)
 - Nick Kenealy (7-1-15 to 12-19-15)
 - Jake McCombie (7-1-15 to 1-31-16)
 - Susan Zhao (7-1-15 to 8-15-15)
 - Malcolm Range (7-1-15 to 6-30-16)
 - Luke Spalding (7-1-15 to 8-15-15)
 - Dennise Arres (7-1-15 to 6-30-16)
 - Anaga Vijaykumar (7-1-15 to 2-28-16)

3. User Services & Assistance Profile

- IT support requests (OTRS tickets)
 - Nearly 2000 work requests were logged for WNS in FY16.
 - These work requests varied in scope from basic hardware/software trouble tickets to requests for new equipment and services.
- Classroom & instructional space technology support
 - Main Library Room 314
 - 15 student Desktop PCs
 - 1 Instructor Desktop PC
 - 1 overhead projection unit
 - UGL Room 291
 - 40 student Desktop PCs
 - 1 Instructor Desktop PC
 - 1 overhead projection unit
 - Integrated sound system
 - ACES Room 509
 - 36 student Desktop PCs
 - 1 Instructor Desktop PC
 - 1 overhead projection unit
 - Integrated sound system
 - Grainger IDEA Lab

- Planar 16 display video wall with HP workstation
 - Presentation space with two 84" LED 4k displays and HP workstation
 - Presentation space with one 84" touch screen LED 4k display and HP workstation
 - 5 mobile units with HP workstation and 55" LED 4k displays
 - 5 mobile units with HP workstation and 65" LED 4k displays
 - 8 collaboration tables with 42" LED displays and video switching
 - 3 TAZ 3d printers
 - 2 mobile carts with 58" LED displays for patron laptop use
- Public service point support
 - 44 circulation workstations throughout the various unit libraries
- Public printing
 - 37 public access printers
 - Associated print release stations
- Technology programs support
 - Scholarly Commons
 - 16 public access workstations (PC and Mac)
 - 4 faculty/staff workstations
 - 2 laptops
 - Media commons
 - 6 public access workstations (Mac)
 - 2 faculty/staff workstations
- Other public facing service support and training
 - Rhonda Jurinak hosted dozens of training sessions on the technology offered in Library conference rooms.

Library IT Infrastructure Management and Support (IMS) Annual Report

Date: 08/23/2016

Manager: W. Jason Strutz

I Unit Narrative

1. Major activities and accomplishments of the unit in FY16 (July 1, 2015 to June 30, 2016):
 - All software projects in source control
 - All production services in Tech Services Virtualization shared service
 - All dev services in Data Center Shared Service
 - All production services backed up daily with retention period of 1 year (unless otherwise specified)
 - Retired SiteMinder for Shibboleth
 - Developed project management tools
 - SharePoint templates
 - trained Facilities staff
 - JIRA used for project management in non-IT units
 - Servers are automatically documented on provision
 - Participated in in-depth consulting through Scholarly Commons
 - Puppet has been expanded to automate configuration management of servers
 - Standard practices for patching were developed and vetted
 - Credit card payment gateways created for ILL/DD, Mortenson
 - Support for new services
 - Omeka (RBML, Scholarly Commons)
 - Research Data Services
 - Medusa
 - Illinois Research Connections
 - ArcGIS
 - Illinois Data Bank
 - OTRS upgrades
2. Major challenges faced by the unit during FY16:
 - Strict deadlines based on warranty expirations for achieving infrastructure upgrades
 - Achieving consensus on technology and processes for software development and long-term code maintenance
 - Handling recurring procurement issues
 - Supporting a growing catalog of services with increased uptime and support expectations
 - Onboarding new staff
 - Working with multiple service owners to better secure and support database driven

applications

3. Significant changes to unit operations, personnel, service profile, or service programs:
 - Centralized virtualization support for production services
 - Increased collaboration with NCSA for repository storage and research data programs, particularly in support of the Illinois Data Bank
 - Added two AP positions: Visiting Information Systems Analyst Mary Winters-Meyer, and Data Analyst Mike Nelson

4. Articulate the ways in which the unit and/or its members contributed to Library-wide programs, including information services, instructional services, scholarly communications, assessment, collection management, digital content creation, staff training and development, diversity efforts, and public engagement:
 - Support of Oak Street and Stacks transfer applications and work flows;
 - Support of campus Exchange email system shared inboxes and distribution lists;
 - Collaboration with Engineering IT Shared Services for administrative applications, including vacation/sick leave reporting, Banner account charts, and key inventory;
 - Improved support for collection and content management systems, including CONTENTdm, Omeka, Guide on the Side, and WordPress;
 - Service on the Library Assessment Committee and the Staff Development and Training committee;
 - Participation in campus-wide shared service initiatives for data center consolidation and server virtualization;

5. Articulate Unit Annual Goals for FY17:
 - Increase adoption of procedures and best practices for application and software life cycle management
 - Improve business continuity and disaster recovery procedures, including
 - Load balance critical web services including the reverse proxy, Easy Search, and the Library Gateway.
 - Create custom 404 messages for all production services
 - Provide training to IT and Library faculty/staff on topics such as the VPN/remote gateway, encryption, hot topics in IT, source control, etc.
 - Implement a centralized web log and analytics tool to replace weblogstats and better manage our web and application logs.
 - Ensure that all production services are fully documented, both for end users and internally for IT.
 - Retire NetInfo for DHCP, in favor of IPAM
 - Redesign and implement technology for “tier 2” storage for services such as:
 - Medusa ingest
 - Media Commons scratch space
 - DCC workspace
 - Virtualization hosting sandbox
 - Large scale audio / video storage
 - Audit database and web applications for security, data classification, and run-time errors due to upgraded software versions

- Bring Windows configuration management up to the standards set by current Linux configuration management tools, such as Fabric and Puppet
- Implement 2 factor authentication on all servers
- Enable forced https on all web applications
- Goals for Library-specific application support
 - Remove all “emailers” from website so that we decrease the amount of spam seen in many Library inboxes
 - Investigate options for improving functions served by go.php proxy page with better integrated out-of-the-box proxy options

II Statistical Profile

1. Hardware and Software Support Profile

(describe the hardware, software, and application support provided)

- **Server and service counts**
 - 13 physical servers (includes all VMWare ESX hosts), down from 22 last year
 - 152 virtual servers (includes development, test, and sandbox/innovation servers)
 - 382 TB usable storage
 - Tier 1 – Compellent SAN (Raw/Usable TB): 200/182 for dev/test
 - Tier 2 – Equallogic storage (Raw/Usable TB): 264/187
 - Disk Arrays – PowerVault for Crash Plan backup (Raw/Usable TB): 16/13
 - 47 public-facing services
 - Some important patron-facing IMS supported services include:
 - The Library Gateway and all Library websites
 - Easy Search
 - Online Journals and Databases, the Journal and Article Locator, and the A-to-Z list
 - Interlibrary Loan and Document Delivery
 - Electronic Reserves including streaming media
 - The Voyager catalog
 - Public Printing
 - Wide and varied digital collections, including the Illinois Digital Newspaper Project, Illinois Harvest, Brittle Books, Kolb-Proust, and many smaller, specialized collections
 - Ask a Librarian and the Question Board
 - 27 services used primarily by Library faculty and staff
 - 33 services internal to Library IT in support of those other services
 - 256 databases (includes development, test, and deprecated databases)
 - 253 distinct websites / web applications
- **Ongoing large scale projects**
 - Database and web application audit
 - Windows configuration management
 - Printing shared service
 - Campus security audit
 - Tier 2 storage refresh

- Service monitoring overhaul

2. Personnel

- List, by name, all faculty, Academic Professionals, civil service staff, and Graduate Assistants assigned to the unit in FY14.
 - W. Jason Strutz – Manager Infrastructure Management and Support
 - Academic Professional
 - 1.0 FTE (7-1-15 to 6-30-16)
 - Jon Gorman – Application Support Specialist
 - Academic Professional
 - 1.0 FTE (7-1-15 to 6-30-16)
 - Chuck Kibler – Network Engineer
 - Academic Professional
 - 1.0 FTE (7-1-15 to 6-30-16)
 - Tim Vruwink – Research Programmer
 - Academic Professional
 - 1.0 FTE (7-1-15 to 6-30-16); resigned effective July 10
 - Mary Winters-Meyer – Visiting Information Systems Analyst
 - Visiting Academic Professional (3-year appointment)
 - 1.0 FTE (3/16/2016 – 6/30/2016, vacant previous)
 - Mike Nelson – Data Analyst
 - Academic Professional
 - 1.0 FTE (6/24/2016 – 6/30/2016, vacant previous)
 - Vacant – Systems Administrator
 - Academic Professional
 - Approved July 2016 to back fill Tim Vruwink
- Provide overview of physical working space for unit
 - Infrastructure Management and Support personnel occupy approximately 400 square feet of office space in Room 424 of the Main Library;
IMS maintains server and storage hardware in Main Library Room 416, and co-located space in the DCL data center;
- Specify the amount of the unit's FY16 Student Assistant wage budget and Student Assistant FTE.
 - IMS did not have a Student Assistant wage budget for FY16, and no Student Assistants were employed.

3. User Services & Assistance Profile

- IT support requests (OTRS tickets);
 - 362 successfully closed tickets
 - 2 unsuccessfully resolved tickets

Library IT Web Team Annual Report

Date: 08/24/16

Manager: Robert Slater

I Unit Narrative

1. Major activities and accomplishments of the unit in FY16 (July 1, 2015 to June 30, 2016):
 - Mockups, Prototyping, and Usability Testing of new gateway and WordPress templates
 - Integration of Shibboleth authentication for WordPress sub-site>AD Group permissions
 - Development of WordPress themes and plugins for use in WordPress Web CMS Project
 - Development of proxy approach to serve WordPress content from www.library (the reverse proxy)
 - Launch of first WP CMS sites (Interlibrary Loan and “top-level” content, linked under “More” options in site-wide navigation from the gateway).
 - Development of customized HTML, CSS, and JavaScript to apply new library gateway look and feel to LibGuides 2.0
 - Iterative improvements for usability and accessibility for the Library Gateway.
 - Improvements of workflow management processes for code management, testing, optimization, versioning, and deployment for Gateway and WordPress content.
 - Investigation and implementation of a workaround to allow Omeka to be run in a quasi-multi-site fashion

2. Major challenges faced by the unit during FY16:
 - Changes to Library WP Project Team membership (addition and loss of two members: Suzanne Chapman, full time, and Maria Lux, hourly)

3. Identify significant changes to unit operations, personnel, service profile, or service programs:
 - Expanding support roles for managing two disparate Web Content Management Systems (openCMS and WordPress)

4. Articulate (with appropriate examples) the ways in which the unit and/or its members contributed to Library-wide programs, including information services, instructional services, scholarly communications, assessment, collection management, digital content creation, staff training and development, diversity efforts, and public engagement;
 - A core operating principle of the Library IT Web Group is the support and coordination of web content managed by Library Faculty and Staff. Specific responsibilities include:
 - Create or modify existing web templates and elements for use by library faculty and staff in various web management systems (including the openCMS Content

- Management System, WordPress for PIE and the Library CMS, and several third-party solutions, both run locally and hosted, e.g.: Primo, SFX, Voyager, vuFind, LibGuides, etc.);
- Train, support, and troubleshoot problems in the use of the library web content platforms for all library faculty and staff, including the integration of third party code/resource into library managed web content (flickr, twitter, etc.);
 - Provide iterative improvement for and maintain the library gateway (www.library.illinois.edu)
- The Web Team’s major contributions to library-wide programs this year focused mostly on information services, including:
 - The development and deployment of a more usable and accessible Library Gateway
 - The development and deployment of WordPress themes and plugins.
 - The Web Team contributed to staff training and development by developing both internally focused and library staff focused documentation
5. Review progress made on Unit Annual Goals for FY16 (as enumerated in the FY15 Unit Annual Report);
- Development and deployment of WordPress themes, plugins, templates, and custom content types for hosting Library Unit Content
 - Majority of work completed for converting “early adopters” for transitions from OpenCMS to the WordPress CMS
 - Outlines for WP training materials, as well as some partially completed materials, has begun.
 - Implementation of Omeka as a multi-site system was put in place using workaround because the actual Omeka multi-site project has not come to fruition yet
 - WordPress CMS is nearly ready to be opened up to units for content conversion.
 - Work has not been started on the log analytics/high availability reverse proxy projects, due to workloads in both the Web Team and IMS (higher priority projects)
6. Articulate Unit Annual Goals for FY17:
- Transition 25-50% of library units from OpenCMS to WordPress CMS
 - Iterative improvements to WordPress CMS, including development of additional templates, custom post types, and plugins to offer additional features and functionality
 - Implementation of centralized web logs, including automated deposition, tracking, archiving, and analyzing

II Statistical Profile

1. Hardware and Software Support Profile

(describe the hardware, software, and application support provided)

- Production systems which comprise the Library web presence (in order of amount of content/prominence- this list is certainly not exhaustive but covers 95% of the servers that house our Library IT managed web content)
 - Zola stack (dev, stage, and production): Apache server configured to run as a reverse proxy server to facilitate serving/branding content from a variety of library web servers all from the same host name, <http://www.library.illinois.edu> (stage version

- will become part of the High Availability zola project this year)
- cms.library.illinois.edu (only accessible from a campus IP address): current Library Content Management System (OpenCMS 7.0.4, Apache Tomcat) – contains the majority of static (non-application) library web content on systems maintained by library IT.
- WordPress CMS stacks (wordpress, wordpress-stage, wordpress-dev and wordpress-sidecar, wordpress-sidecar-stage) for hosting new Library CMS content (non-sidecar stack) as well as specialty WordPress projects that don't meet the requirements or otherwise can't be hosted in the main WordPress CMS (sidecar)
- apache-ns.library.illinois.edu – an Apache web server that houses unit library non-CMS web content, mostly content written in PHP (and some PERL), that doesn't require https or auth/auth restrictions to accessing the content.
- apacheprod.library.illinois.edu (<https://www-s2.library.illinois.edu>) – an apache web server for hosting secure (https) content, mostly composed of content that requires access restrictions
- Number of publicly-accessible web pages (files of types: htm*,.doc*,.rtf,.php,.pl) and hit counts/analytics information
 - Content in the cms.library.illinois.edu: 13,667 pages
 - Content on apache-ns.library.illinois.edu (previously cooper.library.illinois.edu): 24,522.
 - Gateway information (<http://www.library.illinois.edu/index.php>) (from Google Analytics).
 - Fiscal Year 2016 (July 1, 2015 – June 30, 2016):
 - Pageviews: 1,510,855
 - Unique Pageviews: 1,018,457
 - Fiscal Year 2015 (July 1, 2014 – June 30, 2015):
 - Pageviews: 1,654,761
 - Unique Pageviews: 1,109,066
- Number of active web content contributors (in the CMS):
 - Accounts that have been used during FY 2016: 206
 - Total Active Accounts: 701

2. Personnel

- List, by name, all faculty, Academic Professionals, civil service staff, and Graduate Assistants assigned to the unit in FY16.
 - Robert Slater – Technical Architect for Library Web Content
 - Academic Professional
 - 1.0 FTE (7-1-2015 to 6-30-2016)
 - Jemma Ku – Internet Applications and Systems Support Specialist
 - Academic Professional
 - 1.0 FTE (7-1-2015 to 6-30-2016)
 - William Weathers – Web Developer and User Interface Specialist
 - Academic Professional

- 1.0 FTE (7-1-2015 to 6-30-2016)
 - Helen Zhou -- Electronic Access Specialist
 - Academic Professional
 - 0.5 FTE (7-1-2015 to 6-30-2016)
 - Provide overview of physical working space for unit
 - The Web Team personnel currently occupy approximately 300 square feet of office space in Room 424 of the Main Library
 - Specify the amount of the unit's FY14 Student Assistant wage budget and Student Assistant FTE.
 - The Web Team did not have a Student Assistant wage budget for FY14, and no Student Assistants were employed.
- 3. User Services & Assistance Profile**
- IT support requests (OTRS tickets)
 - The Web Team answered more than 234 OTRS tickets in the past year;
 - This doesn't include the large volume of direct request received via email by Web Team Members or drop-ins at the Help Desk.
 - Support ranges from requests to do minor tasks (debug and then remediate minor JS/CSS/HTML issues) to training the requesting user how to make those fixes themselves, to request for complete (re)design of new web parts/pages/sites, to support for using third-party services (like Google Calendar for library unit hours management).
 - Digital signage
 - The Library licenses the use of the CITES managed 4Winds Digital Signage System to manage content (and contract for support) for 18 digital signs at various location (although only 16 are currently in use).
 - The Web Team serves as the Library Administrators for the 4 Winds Server (developing and managing templates, scheduling content "buckets") as well as developing systems and workflows that allow librarians and staff to manage their own content (or content buckets) without necessitating making them administrators on the 4 winds software

Library IT Software Development Group (SDG) Annual Report

Date: August 31, 2016

Manager: Tom Habing

I Unit Narrative

1. Major activities and accomplishments of the unit in FY16 (July 1, 2015 to June 30, 2016):

SDG has always had aspects of a virtual unit, but it is even more so now that the SDG manager, Tom Habing, was appointed Interim Director for Library IT, and also since the formation of the Repository Team (SCARS) which contains many former SDG staff. Most of the following accomplishments apply to the core SDG team of Tom Habing and Robert Manaster; although, some mention is made of software projects managed by Bill Mischo and Tim Cole and their IT staff at Grainger.

The SDG developed or enhanced a number of software applications in the past year, including the following, in no particular order:

- **Graduate Assistants:** An application used by students to apply for graduate assistantships in the Library was developed. It includes two interfaces, one allowing students to register and upload their resumes, <https://quest.library.illinois.edu/GAapplicants/>, and another allows staff to search for potential applicants, including the full-text of their uploaded resumes, https://quest.library.illinois.edu/GAapplicants_search/.
- **BibLeaves:** Enhancements were made and new collections were added to the Library's BibLeaves application for specialized bibliographies, <http://bibleaves.library.illinois.edu/>, including some that were migrated after the Library discontinued support for RefWorks, such as Tom Weissinger's Black Caribbean Literature. Other additions include several sheet music collections for MPAL. BibLeaves now hosts over 214,000 bibliographic records.
- **Illinois Researcher Connections:** A significant amount of work (possibly up to about 2/3 FTE split across three programmers) was done in support of the campus Illinois Researcher Connections, the Elsevier PURE system, <https://experts.illinois.edu/>. The SDG developed a business process database, <https://irc.library.illinois.edu/>, that imports data from DMI/Banner, allows it to be enhanced both through automated and manual processes, and then exports the data for ingest into the Elsevier system. SDG programmers at Grainger also contributed to the development of a system to harvest citations from OCLC WorldCat for ingest into IRC to fill gaps for non-STEM researchers. While the development work was done by SDG staff, most of this work was managed by Bill Ingram, the manager of the SCARS team., who may have spent upwards of 20% of his time in support of the IRC project.
- **HathiTrust Research Center:** SDG staff also provide significant support, some

partially reimbursed, for the HathiTrust Research Center, HTRC, including development of a SQL database which imports over 14 million records from HathiTrust and allows HTRC staff to assist users with queries to build work sets.

- **Archon to ArchivesSpace:** SDG staff also assisted with the evaluation of the ArchivesSpace system, working for Chris Prom to run data migration tests from Archon to ArchivesSpace.
- **EasySearch:** Driven by Bill Mischo out of the Grainger Library, SDG staff at Grainger continue to contribute to major enhancements to the Library's EasySearch and related search and discovery systems, including the very successful Bento version.
- **SFX Tracker:** Staff also contributed to a number of special projects, such as an application to assist staff in making e-resource acquisition decisions, finding title overlaps purchased from different sources, and viewing usage logs, <https://quest.library.illinois.edu/SfxTracker/>.
- **Children's Literature:** Working with Nancy O'Brien, a test database was developed in support of a grant application to develop an "International Directory of Special Collections in Children's and Young Adult Literature," <https://iisdev1.library.illinois.edu/childrenslit>.
- **Workstation Usage:** A tracking and reporting system was developed to log public workstation usage, <http://quest.grainger.illinois.edu/LogWorkstationUsage/Home/Index>.
- **Montemar Letters:** Working with Antonio Sotomayor and a grad assistant, a system is being developed to showcase the newly digitized and transcribed Montemar Letters, <https://iisdev1.library.illinois.edu/montemarletters>.
- **Uzbek National Bibliography:** Working with Kit Condill and a grad assistant, a system to provide browse and full-text search for the recently acquired Uzbek National Bibliography, <http://iisdev1.library.illinois.edu/Uzbek/>, is being developed.
- **EZID and CrossRef:** Working with the RDS staff, developed enhancements to the RDS EZID minting Portal, <https://quest.library.illinois.edu/ezid>, including adding support for CrossRef DOIs, which is a work-in-progress.

2. Major challenges faced by the unit during FY16:

The biggest challenge has been focusing on high-priority Library initiatives, such as IRC, while also keeping up with the demand for smallish specialty software projects, especially those which are grant-funded or are pursuing grant funding; we try not to turn those away. With the exception of the software development coming out of Grainger, most of the above was accomplished with the assistance of the Interim Directory of IT, one full-time SDG programmer, and some assistance from other IT units, especially IMS and SCARS.

3. Identify significant changes to unit operations, personnel, service profile, or service programs:

There haven't been any changes in the past year.

4. Articulate (with appropriate examples) the ways in which the unit and/or its members contributed to Library-wide programs, including information services, instructional services, scholarly communications, assessment, collection management, digital content creation, staff training and development, diversity efforts, and public engagement;

See the list of projects in #1. The SDG is really the only IT group with a mandate to support internally facing business applications, such as in support of HR, business, acquisitions, etc., and it also has some leeway to support miscellaneous grant-funded projects and other smallish specialty projects in the Library. This is changing somewhat with the recent hiring of a Data Analyst as a member of the IMS group; IMS is building its software development capacity and should be able to take on more of these sorts of projects that the SDG was previously on the hook for.

5. Articulate Unit Annual Goals for FY17:

- SDG will continue to maintain and enhance existing applications and be responsive to special requests.
- Significant ongoing or anticipated projects include the following:
 - Continued support for the **Illinois Researcher Connections**; we are investigating shifting some of this load to the IMS Data Analyst, but we anticipate a significant commitment from Library IT overall for the next year in support of this project.
 - Likely replacement of the **GFA Oak Street** warehouse inventory software.
 - Possible replacement of Archon with **ArchivesSpace**.
 - Continued development of the **NetInfo** application used by Library IT to manage its hardware and network inventory.
 - Integration and support for our newly acquired **CrossRef** membership.
 - Increasing support for the **HTRC**.
 - Increasing support for middleware and web APIs needed by the **Web Team**, such as the Unit and Staff Directory application.

II Statistical Profile

Personnel

List, by name, all faculty, Academic Professionals, civil service staff, and Graduate Assistants assigned to the unit in FY15.

In its current configuration, SDG is mostly a virtual organization, consisting of the following individuals:

Core SDG Team

- **Tom Habing** – Manager of SDG (Also Interim Directory) – Full-time AP
 - **Robert Manaster** – Research Programmer – Full-time AP

Grainger Team

- **Bill Mischo** -- Information Systems Research and Development Librarian (50%) – Full-time Faculty
 - **Jay Heldreth** – Research Programmer – Full-time AP
- **Tim Cole** -- Digital Content Access Librarian (50%) – Full-time Faculty

- **Janina Sarol** – Research Programmer – Full-time Visiting AP (soon to be part-time)

Tim and Janina are mostly engaged in research related to HTRC, Open Annotation, Emblematica, and Open Linked Data. Janina’s work on the IRC WorldCat harvest has been their most direct contribution to SDG-sponsored projects.

Prototyping Team

- **Jim Hahn** -- Mobile Applications and Prototyping Services (40%) – Full-time Faculty
 - Plus, mostly student hourly workers

Jim’s team has mostly contributed web service APIs to support the Web Team in the past year. Although, he has been actively engaged with the mobile MNRVA app and also enhancements to the iWonder chat reference tool.

Provide overview of physical working space for unit

Varies: Library 424 and 426, Grainger Library, and Undergrad Library

Specify the amount of the unit’s FY14 Student Assistant wage budget and Student Assistant FTE.

Core SDG student budget was \$9,000; over 90% was spent in past fiscal year

Library IT Scholarly Communications and Repository Services (SCARS) Annual Report

Date: August 31, 2016

Manager: Bill Ingram

I. Staffing

The Scholarly Communication and Repository Services (SCARS) division of Library IT is led by Bill Ingram, Manager.

Research Programmers Howard Ding, Seth Robbins, Colleen Fallaw, Alex Dolski, and Chris Maden report to Bill.

- Howard Ding and Seth Robbins were appointed to the SCARS division in FY 2013-2014.
- Colleen Fallaw was hired onto the SCARS division in April 2015 as Research Programmer for Research Data Services.
- Alex Dolski was appointed to the SCARS division in May 2015 as Research Programmer for Digital Library Projects.
- Chris Maden joined the team in November 2015 as Visiting Research Programmer for Scholarly Communications and Publishing.

Graduate Assistants and Student Hourlies:

- Nushrat Khan was a 9-month, 50% GA for the Sustainable Environment through Actionable Data (SEAD) grant, for which Bill Ingram is the Library's sub-contract principal investigator. Her contract ended in May.

II. Activities and Accomplishments

Scholarly Communication and Repository Services is made up of application developers responsible for analyzing, designing, implementing, and supporting software systems related to scholarly communication, repositories, and publishing at the Library.

The list of services created and/or maintained by this group includes:

- IDEALS: the campus Institutional Repository,
- Vireo: the campus Electronic Thesis and Dissertation deposit system, a collaboration between the Library and the Graduate College,
- OJS: The Library's publishing service for undergraduate research journals,
- Illinois Data Bank: the repository service for the Library's Research Data Service,
- Medusa Digital Library: public access search and browse interface for the Library's digital collections,
- Medusa Collection Registry: The Library's digital preservation system and collection registry,

- Publishing: requirements gathering and analysis for a Library-based open access publishing platform,
- Illinois Research Connections: the campus research networking and profiling service, and
- SEAD: (Sustainable Environment through Actionable Data) an NSF-sponsored DataNet award to the University of Michigan, the University of Illinois, and Indiana University for creating data services for sustainability science research.

IDEALS — with the Repository Services Coordinator position still vacant, the development team have had to continue their involvement in the management of the repository and help with onboarding the other librarians who are filling in in the interim. The team began worked closely with Aaron McCollough, Scholarly Communications & Publishing Librarian, while he put together a search for the new Repository Services Coordinator. Seth Robbins upgraded IDEALS to DSpace 5.5, which is the latest version of the repository software. This new version includes a REST API and support for Linked Open Data. Helenmary Sheridan was hired as Repository Services Coordinator in May. She and Seth have begun planning what's next for IDEALS.

Vireo — the biggest news for the ETD project is that the Graduate College has made ProQuest deposit optional; heretofore it had been compulsory for Doctoral Students. Seth Robbins made small changes to the software to support ProQuest-optional deposits.

OJS — the development team maintains the software and system architecture for the Library's publishing system in partnership with the Scholarly Commons. Late this year, responsibility for this service has been transferred to the Scholarly Communications & Publishing unit. Chris Maden plans to upgrade the software to OJS version 5 in the fall.

Illinois Data Bank (IDB) — Colleen Fallaw, in close collaboration with the Research Data Service and other members of the development team, launched a beta release of the IDB into production in May. It is currently open for deposits. Further development work on the IDB will focus on UX, features, and. ways to increase the file-size limit for transferring files to the IDB.

Medusa Digital Library Service (DLS) — Alex Dolski has launched a beta release of the Digital Library application into production. So far, seven collections have been migrated from CONTENTdm to the DLS. The development team has been working closely with Preservation, CAM, and the Archives on improvement to access features, UX, and discoverability.

Medusa Collection Registry — the Medusa Collection Registry service is running in production, but is still being heavily developed. The amount of data stored in Medusa has nearly doubled since last year. To date, we have ingested over 16 million files, totaling 74 terabytes. Other services use Medusa for preservation file storage, including IDEALS and the IDB. Especially as the IDB gets more use in the upcoming year, we will need to make sure demand for storage does not outpace our capacity to provide preservation services of continuing value.

Publishing — Chris Maden was hired as Visiting Research Programmer for Scholarly Communications and Publishing in December. Chris has been working closely with Aaron McCollough on researching, prototyping, and stabilizing a suite of open source publishing tools, focused primarily on the Publishing Without Walls grant, with the expectation that the final product will ultimately help the library bootstrap its Illinois Open Publishing Network services.

Illinois Research Connections (IRC) — Bill Ingram has been advising the IRC steering committee on issues related to the technical rollout of the service on campus. He has also been working with Bill

Mischo, Tim Cole, Jay Heldreth and Janina Sarol to harvest publication records from VIAF and the WorldCat Discovery API for deposit into IRC in order to better represent the research output for Arts and Humanities researchers, who don't typically publish in the journals mined by Pure, the software that powers IRC. Likewise, Bill is engaged with the Office of Technology Management in devising a process for obtaining patent information to be included in the research output for researcher profiles in the IRC. Bill is also supervising Robert Manaster's development of a database Web application for transforming data pulled from Banner by the Division of Management Information into a form ingestible into the system, and for keeping track of per-unit, non-tenure-track profile allocations, administrative permissions, and general backend administration tasks.

Bill increased his involvement in the management of the service during the interim between when Rebecca Bryant left her position of Visiting Project Manager and when we Mark Zulauf started as Coordinator for Researcher Information Systems. Bill took on some of Rebecca's former duties himself and has arranged for the Library IT Help Desk to help with service triage for patron queries made to the IRC help e-mail account and OTRS ticketing queue. He has become a major source of information about IRC, and has spent significant time answering questions, leading meetings, and coordinating activities. He will continue working closely with Mark Zulauf through his onboarding process and beyond.

The Library's involvement with the Illinois Research Connections program is substantial, and much of the burden of behind-the-scenes processes necessary for running the service has fallen on the Library IT department. Bill Ingram, Robert Manaster, Jay Heldreth, and Janina Sarol have each devoted significant time and effort to the project over the past year. Their work was essential for getting the project up and running, but it will be necessary for Library IT to play an ongoing role in supporting the service going forward.

SEAD – Bill Ingram continued serving as the Principle Investigator for Library's sub-contract involvement in the SEAD project. Nushrat Khan worked with Bill on the project for a second year as a 9-month, 50% Graduate Assistant. Nushrat gave a poster presentation of their work at the Digital Library Federation October forum in Vancouver. They developed a suite of software tools for connecting DSpace repositories to SEAD through the SEAD MatchMaker service. The grant will be ending early in the Fall Semester.

III. Goals

One goal of the repository development team will be to increase the technology choices for deposit into the Illinois Data Bank and thus decrease the file-size limitation for transferring data to the repository. We are currently investigating SFTP and Globus as methods for depositing large files.

Another goal is to finish migration of all collections out of CONTENTdm into the Medusa Digital Library, and allow that service to be retired. To date, we have migrated seven collections. But these seven represent a set of problems for which their solutions can be applied easily to other, similarly organized collections of like content. Which means, now that we've spent the time figuring out how to migrate these collections, the rest will follow quickly.

The team plans to maintain IDEALS and Vireo, fix the software when needed, but wait to do any major upgrades until a strategic plan for repositories is in place. With the Scholarly Communications & Publishing Unit now fully staffed, we expect repository planning to commence very soon and new software development to follow soon thereafter.

A major goal in support of the Library's burgeoning publishing effort is to release the pilot publications that have been used to evaluate the software for stability and suitability. Following that release, the group plans to officially launch the suite of services that will make up the Illinois Open Publishing Network.

Another overarching goal of the team is to keep ahead of the rising demand for storage and maintain our capacity to deliver preservation services at scale. One concrete goal is to move our primary storage node from the NCSA Storage Condo to the Active Data Storage (ADS) system. That work is already underway thanks to generous support from Jon Gorman and Jason Strutz at IMS. Another goal is to modularize and separate the lower-level repository components of Medusa from its user-facing Collection Registry and preservation dashboard components. In doing so, we will be able to horizontally scale the low-level repository components independently of the Collection Registry.

The primary goal for IRC is to finish development of software to monitor the numbers and allocations of faculty and AP researchers across all campus units, facilitate the annual college-level unit allocation process for non-tenure-track researchers, manage authorized users and decision makers in colleges and departments, and track individual researchers who have chosen to opt out of the service. Accomplishing this goal will require resources from Library IT, but not necessarily from the Repository Team. Mike Nelson, the Library's new Data Analyst, has agreed to help develop and implement queries and reports for extracting data from Banner in order to populate the IRC system with up-to-date personnel data. And Robert Manaster, Research Programmer for the Software Development Group, will also be able to contribute to the software development.

A secondary goal for IRC is to formalize methods for facilitating the automatic and repeatable discovery and collection of data through searching external sources. We have begun exploring ways of collecting data about monograph and book chapter publication and patent data, but we'd like to start collecting data about grants and awards as well. Programmers Jay Heldreth and Janina Sarol have developed scripts and routines for author disambiguation and WorldCat queries. Likewise, Bill Ingram has developed software for processing patent records from OTM. These have been done as one-time, almost proof-of-concept activities, but no workflows or allotment of resources have been put forth for repeating this process on an ongoing basis.

A tertiary goal for IRC is to work with other campus units on integrating IRC with their internal reporting and analytics systems, and with their departmental web sites. Mark Zulauf and Bill Ingram recently met with the College of Engineering IT Shared Services web team to determine the extent to which IRC can supplement or even replace their current profile system for use in updating faculty profiles on college and department web pages. The Engineering team expressed a lot of interest, and we are planning to meet again soon. But we are concerned that the massive administrative task of tracking and managing unit allocations for profile accounts in IRC is such a large undertaking that it will exhaust all of our IT resources, leaving us unable to work with other campus units on integration this year.

Our final goal for IRC is synchronization with the institutional repository. Bill would like to explore ways of using IRC as a source of information about Open Access publishing, and develop a connector to IDEALS so that researchers can submit full text to the repository for publication records in IRC. This goal most directly supports the Library's scholarly communication and publishing mission, and sits most squarely within the purview of the Scholarly Communication and Repository Services unit.