Research Information Technology Systems

Neil Sedlak
Information Systems Leader

MISSION STATEMENT

The mission of Research IT Systems is to maintain and improve the computing infrastructure of the Office of the Vice President for Research, associated sub-departments, and selected research institutes.

GOALS ACHIEVED FOR FY 2011

Continue to analyze and improve Web content and design. Goals include creation of an internal Web portal and redesign of the Office of Research Compliance sites.

Goal accomplishment: An internal Web portal has been created to form a centralized starting point for Office of Research staff. It will support internal notices, as well as content specific to the office, and provide a comprehensive list of internal and external tools to Office of Research staff. A key benefit will be a reduction in the number of large attachments emailed to the entire office and a more centralized approach to record retention. The Office of Research Compliance website rebuild was postponed while new content was being developed for that group and for Professional Development, Human Resources, and the Office of Sponsored Programs.

Continue development of software to improve the workflow and processes of Office of Research units, supporting and adapting to the research administration system project.

Goal accomplishment: As in the past, many gains were made in the automation, improvement, and efficiency of processes through electronic means. The following key work was accomplished this year:

- Office of Sponsored Programs (OSP) file management system and processes: The existing paper-based filing system was redesigned by OSP with our assistance to integrate with various electronic systems, allowing the following advantages: reduction in paper output and storage; improved lookup of data from computer systems; and the creation of a single source of electronic data, reducing duplication.

- OSP proposal authorization notice (PAN) system: This goal was described in last year’s report but was not completed until this fiscal year. In summary, a process involving internal paper routing and manual email notifications has been replaced with a Web-based tool. It automates a significant amount of internal processes and provides researchers with a Web interface detailing their project funding authorizations. This year focused on integration with the Banner Finance Web Service, created by the Virginia Tech Application Information Systems (AIS) finance team to provide real-time data from Banner. It allows our software to verify that the data entered into Banner matches the data entered into the PAN system. Significant information is pulled from the data warehouse and Banner to pre-fill forms, eliminating unnecessary data entry. The PAN system integrates with the OSP file management system to provide project files to Office of Research staff and externally to researchers and business managers, replacing the emailing of large proposal files as attachments to multiple individuals. Emails are now generated automatically and the attachments have been replaced with Web-hosted files. A system status monitor ensures robust operation of the software and verifies the status of internal dependencies and of such external systems as Banner, the data warehouse, AIS Web services, LDAP (lightweight directory access protocol), the Central Authentication Service, and other university-provided tools. Such a system provides early warning of trouble and allows us to provide the best user experience possible even in the case of unavailable services.
- **Responsible Conduct of Research**: In 2010, the National Institutes of Health (NIH) and the National Science Foundation (NSF) enacted new training requirements for all individuals on sponsored projects. Failure to comply could potentially result in the loss of millions of dollars in funded research. To gather this information reliably, we worked with the Banner Finance Team to obtain filtered details on which individuals were being funded from NSF and NIH grants. Training records from NIH in-person course registrations and NSF on-line tutorials are captured and processed. Notification and tracking functions have been coded to ensure compliance with sponsor requirements.

- **OSP Project Lookup**: This existing tool gained new life as part of the PAN system development. With the addition of the electronic files, there were several requests for new search types and other enhancements to the information provided. This tool now provides Office of Research individuals with Web-based access to detailed information and electronic files on proposals, grants, contracts, and funds by way of multiple search methods and linked data.

**Upgrade and move primary servers to the Andrews Information Systems Building.**

**Goal Accomplishment**: The Research IT System goal is to move Office of Research production systems to a secure, stable environment. We are on track to finalize this process near the end of summer. The necessary hardware is installed in the Andrews Information Systems Building, design work is complete, and the implementation of the virtualization software is underway, which is the last step before putting the equipment into full production.

**Have Windows 7 and Office 2010 ready and tested to deploy to end users.**

**Goal Accomplishment**: Improvements to our procedures and tools allow us to replace and upgrade computers quickly and with minor disruption to the user. Computers can now be replaced immediately with data restoration beginning as soon as the user logs in. This capability allowed us to fully deploy Office 2010 and upgrade a majority of our users to Windows 7.

---

**GOALS AND OBJECTIVES FOR FY 2012**

- Continue development of software and systems to improve the workflow and processes of Office of Research units, supporting and adapting to the research administration system project.
- Develop an off-site backup capability with live-mirrored data of all enterprise content, duplicate virtual servers, and the ability to switch operation to the backup servers on short notice.
- Support the special requirements of controlled research, and sensitive data in general, through appropriate procedures and software solutions.

**Statistics**

**Office of Research Compliance support**

- 3,582 IRB certifications
- 649 IACUC certifications
- 871 résumés received via IRB Protocol Management
- 6,225 supporting documents captured for IRB
- 594 IACUC annual project reviews for all active protocols sent and answered
- 508 IACUC active and inactive users uploaded (906 active)
- 2,040 IACUC trainings uploaded

**Office of Sponsored Program support**

- 3,074 awards loaded
- 2,977 proposals loaded for project lookup
- 805 60-day expiration notices sent
- 5,090 project authorization notice (PAN) change requests recorded
- 4,175 total PANs created
- 396 new cost-sharing transactions tracked within OSP
- 757 subcontract agreements stored for tracking and auditing
- 3,547 proposal letters loaded

**Other**

- 4,788 total tickets created, including automatic system status tickets
- 1,352 total user submitted tickets, an average of around 5.5 user-submitted tickets per working day, assuming 250 actual work days a year
- 454 files dropped (14.2 Gb not sent via campus email)