SOA Initiative Fall Newsletter – Fall 2015

Dear SOA community,

This is our 2015 Fall newsletter beginning a new academic and fiscal year. Included in this edition are updates on where we are with services, service consumption, and training as well as a special addendum on the Learn@Northwestern project.

Subscribing to the SOA Notifications is quick and easy. Instructions are at: [Subscribing/Unsubscribing to the SOA Notification email distribution list](#)

More and more SOA communications are being posted exclusively to the “COP: Service Oriented Architecture” group on [Northwestern’s Yammer site](#). If you are not a member, please join and stay informed.

**Where We Are Now**

30 services are now available for use by the Northwestern community. There are 14 different systems using the services. Many of the services will have high value for future projects. Approximately 150 Northwestern staff members have attended formal training given by our training partner, the Software Engineering Institute. The SOA Community Feedback Survey provided interesting and valuable feedback. We had a 70% response rate and learned that the services that are in most demand are:

- Identity and Personal Information
- Academic Information

Followed by:

- Employment Information
- Financial Information
- Research Administration Information

At this point the SES, FASIS, and Identity Services teams have made the biggest contributions to the inventory of services, some of which came online in September, and these will go a long way toward satisfying the demand for identity and personal information.
The Learn@Northwestern (training management system) implementation project came online September 8. Significance to the SOA Initiative are:

- It showed us that modern cloud systems are “SOA-Ready” and provided an opportunity to integrate the system with several of our existing administrative systems using SOA methodology. Michael Blayney and Kathy Tessendorf were instrumental in driving this effort and blazing this trail. The FASIS, SES, and ORIS teams all provided significant support for the project in the development of web services along with their invaluable knowledge of the data and business processes involved.
- The project helped create a total of 12 new services from SES, FASIS, and NSIS that are re-usable and will be instrumental in projects to come.

**In The Coming Months**
Several requests to use existing services have come through in the past few weeks. The Galter Health Sciences Library will soon embark a project that will leverage several of the services and much of the knowledge garnered in the Learn@Northwestern project. We will continue to look for opportunities to apply the SOA methodology to business problems. There are opportunities for creating more efficient business processes where we are still using manual paper-based processes and processes that require staff to log onto several different systems to complete a process.

**More on Learn@ Northwestern**

**What is Learn@Northwestern**
The Learn@Northwestern system, launched on September 8th, is a new system for Northwestern that delivers and tracks training for our researchers helping the University to comply with federal regulations. The product chosen for this important function was Saba, a market leader in this area and a product that is only offered in the cloud. The fact that the University chose a cloud product is not new; cloud products are being chosen by Northwestern with increasing frequency. However, this time, the product had to be able to integrate with on-campus University systems (SES, FASIS, NSIS) in real-time so that our business processes are not slowed by overnight batch processes and data transfers.
The Connection to the SOA Initiative
At about the time Saba was chosen, Northwestern announced an enterprise SOA Initiative to pursue a strategy of real-time integration among University systems and Saba, like other modern cloud systems, has built-in web services and is SOA-ready. Saba’s ability to fit into our SOA environment, however, was only part of the solution; the other Northwestern systems with which Saba was integrating also needed some specific web services to be developed. Once developed, those web services are also usable by other University systems for other purposes. This reusability means that the investment in the development of those web services will continue to pay dividends far beyond the Learn@Northwestern project.

Integration Among Cloud Systems
Another important and valuable aspect of the Learn@Northwestern project has to do with yet another SOA-ready cloud-based system that delivers and tracks researcher training for Northwestern, the CITI system at the University of Miami. CITI has been a training provider to Northwestern for several years and will continue to be used alongside Saba. To work effectively with CITI, Saba must know what training Northwestern researchers have taken in the CITI system. Once again, Northwestern took advantage of a cloud system’s SOA-readiness and integrated CITI with Saba using web services. This, too, was important because, with the increasing prevalence of cloud systems at Northwestern, it demonstrated SOA’s ability to integrate cloud systems with each other.

A Successful Launch on September 8
The Learn@Northwestern integrated system with the Saba training management system at its core working in concert with FASIS, SES, NSIS, and CITI was launched successfully on September 8th. Employee profiles in Saba are being updated in real-time as are individualized training requirements for researchers and courses completed in CITI. The typical one-day (or longer) wait for information to be copied from one system to another has been eliminated and the process for delivering and tracking training for researchers has been greatly improved. Almost all of the web
services that were developed for the project are reusable and can be used by other systems for other purposes.

**The New Reusable Web Services**

- The new reusable web services developed as part of the project are:
- Student Academic Data (SES) – Academic information for a student.
- Student Bio/Demographic Data (SES) – Demographic information for a student.
- Student Academic Data (SES) and Student Bio/Demographic Data (SES) – A composite service composed of Student Academic data and Student Bio/Demographic data (one request of the composite service can be made and one response composed of both sets of data will be delivered).
- Student Record Change Queue (SES) – A message that is published to a queue and can be subscribed to by other systems. This message simply indicates that a new student has been entered into the SES system or a student’s information has been updated.
- Reports To Data (FASIS) – The person an employee reports to.
- Primary Demographic Data (FASIS) – The demographic information of an employee.
- All Appointments Data (FASIS) – All of the appointments held by an employee.
- Demographic and Appointments Data - A composite service composed of Primary Demographic Data and All Appointments Data (one request of the composite service can be made and one response composed of both sets of data will be delivered).
- Future All Appointments (FASIS) – All appointments including those that are future dated.
- Person Record Change Queue (FASIS) - A message that is published to a queue and can be subscribed to by other systems. This message simply indicates that a person has been entered into the FASIS system or a person’s information has been updated.
- Required Role Update Queue (NSIS) – A message that is published to a queue and can be subscribed to by other systems. This message simply indicates whether a person is required to take a specific training class due to research safety regulations.
Harry Samuels (on behalf of the SOA Initiative Steering Group)