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## **Indiana University's Direction and Interests**

-----Original Message-----

From: Thomas, James A [mailto:jthomas@indiana.edu]  
Sent: Thursday, June 26, 2003 12:28 PM  
To: jxf@immagic.com; Severance Chuck; Ken Weiner; Justin Erik Tilton;  
Knox Thomas; Jeff Merriman  
Cc: Carl W. Jacobson  
Subject: RE: Notes from Our Meeting at the JA-SIG Conference

Jim,

Thanks for writing up these notes. ["Notes on Developing 'BestPractices' for Channel/Portal Interfaces: At the JA-SIG Summer Conference," Monday, 9 June 2003.]

This is an excellent summary of the discussion in Denver.

I will attempt to write a summary of Indiana's direction and interests in this area. If anyone has any specific questions or comments for us, please let me know.

As I mentioned in our meeting, Indiana University has our own "home grown" portal framework. When we started our portal project, we were not a Java shop (we were using Uniface Web) and JA-SIG's uPortal had not yet had its 1.0 release. The portal market was shaky at best so we started on our own. We have since become a Java shop and with recent evolutions of uPortal have been much more interested in its direction. In addition, through our work with UM [University of Michigan], Stanford, and MIT on open source Course Management tools that are OKI compliant, we were introduced to Chuck Severance and his CHEF group.

This renewed our interest in Jetspeed. We are left with what seems to be a lot of different possibilities for paths forward but aren't sure they are necessarily converging paths. Therefore, we are very interested in identifying the path forward, or at least "best practices" for going forward, in order to position ourselves strategically such that we can maximize the utility of our own component development efforts as well as leverage all of the wonderful open source work being done in the portal,

middleware, and EAI space.

A summary of things we are working on:

#### PORTAL

Currently, we have our own portal framework, OneStart (<http://onestart.iu.edu>), that is written in Java. In order to facilitate a very distributed content publishing approach, our portal utilizes I-frames for rendering content. OneStart uses Yale CAS [Central Authentication Service] for authentication, our own global directory (via LDAP) for role-based customization, and home grown personalization features. OneStart has built-in channel publishing and aggregated content publishing tools to allow for publishers across all eight IU campuses and schools/depts to manage their own content in OneStart. The types of channels we support include Text/HTML (stored in our database), RSS/RDF, cached pages (stored in our database), and URL's. We have been wondering about what types of support we'd like to build into our portal framework in the future, support for things like uPortal, Jetspeed, JSR 168, WSRP, etc. Of course, we have also considered completely replacing our existing portal framework with uPortal. However, up to this point, we are not prepared to make that leap just yet. Given our work with the OKI group on Course Management tools and as new implementations of the OSID's are becoming available, we are also considering the possibility of making our portal framework OKI compliant.

#### WORKFLOW

A major part of our overall integration strategy is the development of an enterprise scale workflow engine (EWE - EDEN Workflow Engine) for integrating workflow process across business and academic units. EDEN Workflow is a general-purpose electronic routing infrastructure. It is part of the Enterprise Development Environment (EDEN) which contains a set of modular, extensible components for building online services. Applications can use EDEN Workflow to automate and regulate the approval processes for transactions/documents they create. The interface to the EDEN Workflow Engine is a portal channel we call the "Action List". A portal user is notified of all documents assigned to them for approval, completion, or FYI via their "Action List". The "Action List" is an immutable channel

in OneStart. While numerous applications will take advantage of the EDEN workflow engine for this type of processing, the users will go one place, the "Action List" channel, to process their documents. The routing hierarchies and business rules are built into the engine so that the user needn't understand where a document needs to go next. The engine takes care of it automatically and populates the "Action List" for the person or persons at the next level of approval. Once all of the approvals have been made, the necessary transaction is triggered for completing the process.

## EDEN

The Enterprise Development Environment (EDEN) contains a set of modular, extensible components for building online services. We are building a Shared Service Repository that will allow IU developers to publish, call, and "check out" components when building their applications. Using the workflow engine, a formalized process for checking components into the repository will be implemented to insure that appropriate standards have been followed and that the component is viable for sharing across the enterprise. Some of the most commonly used services in the repository are part of our SUDS, Shared University Data Service, environment. Using Oracle replication and batch feeds from legacy systems, we maintain a real-time, 24 X 7 availability database instance for sharing of important enterprise data.

Rather than direct database-to-database interfaces, service are written, either stored procedures or web services via SOAP, to provide access to common types of requests such as "GetValidAccount", "GetCurrentStudent", etc. The Shared Service Repository can be used to locate such services, find the necessary API documentation, and utilize the shared service via the SUDS environment. We hope this will provide a more integrated approach to enterprise web development.

## COURSE MANAGEMENT TOOLS

IU has its own home grown CMS called Oncourse. Oncourse has many nice features and has been very widely adopted across all IU campuses. It is currently written under the MicroSoft development platform (VB). However, we are in the process of rewriting our CMS tools in Java,

componentizing the services, and implementing the available OKI OSIDs. This work is being done in collaboration with UofM, MIT, and Stanford and will be completely open source. In the end, we hope to have a set of open source, componentized, OKI compliant course management tools. The collection of tools from the group (IU, MIT, UofM, Stanford) could be mixed and matched to build your own custom CMS. In our case, these tools will be made available via our enterprise portal, OneStart.

#### CAMPUS COMMUNITY SERVICE

In order to build community around our enterprise portal, we are developing "virtual campus community" services to be delivered via OneStart. These services include an integrated, vCal compliant, calendaring service. The calendar will be automatically populated with a student's course schedule from the registration system and their homework and assignment schedule from the course management system. It will also be integrated with our university-wide events calendar for importing of athletics, theater, and other university events. The "virtual campus community" services also include a Classified Ads Service for ride boards, buying/selling items, finding tennis partners, etc. A Forums/Threaded Messaging service and generic Polling service will also be available this fall. Eventually, we also hope to add an Instant Messaging service as well.

#### FINANCIALS

We have a feature-rich, homegrown financial management system (FIS), that is one of our most successful applications. Barry Walsh has begun an effort to kick-off what he is calling FIS II - an open source initiative being put together by IU, NACUBO and others to rewrite the functionality of our existing FIS in Java, integrate it with our workflow engine, and make it available open source. More details on FIS II are forthcoming over the next few months. This is all I know for now.

#### OPEN SOURCE

We are in the process of formally making a number of our projects open source, including the OneStart portal framework, EDEN Workflow Engine, Course Management Tools,

Calendar, Classifieds, and FIS II. We are relatively new to open source in the administrative computing area. So, we still have much to learn about managing an open source project. However, we have certainly gained a lot from other projects and are eager to give something back to the open source community, especially those in higher education.

BOTTOM LINE

How can we leverage all of our efforts and those of groups like JA-SIG and OKI to make the best use of our development resources for both Indiana University and the higher education community? We hope that by creating an ongoing dialog among groups like JA-SIG, OKI, and others, a "road map", or at minimum a set of "best practices", for going forward can be established.

This may be more detail than you wanted, Jim. I hope it helps to clarify IU's position today and where we hope to be in the future.

Jim

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