FFELP considers Common Record

With the U.S. Department of Education’s launch of the Common Origination and Disbursement (COD) system in April 2002, the Office of Federal Student Aid (FSA) converged three legacy stovepipe systems (Direct Lending, Pell Grants, and Campus-based) into one – COD. The COD system uses XML technology, which is used for real-time transactions. Prior to implementing COD, FSA had to harmonize all the data definitions across these programs, as some data elements were defined differently depending on the program and how they were used.

The result of this effort, which included collaboration with members of the National Council of Higher Education Loan Programs (NCHELP) and the Postsecondary Electronic Standards Council (PESC), is the Common Record, a new standard within the student financial aid community for metadata, edits, and structure across the Pell Grant and Direct Lending Programs. While schools will continue to exchange much of the same Direct Lending and Pell Grant data they have in the past, Common Record takes advantage of the commonalities across programs to maximize the use of common data elements and edits so schools can avoid sending redundant information.

Student and parent recipient data, such as name, social security number, date of birth, and other non-program specific data will be stored once, so a student/recipient will have one identifier record in COD for all programs. Edits relating to general school and student eligibility data will also be the same across programs. Program specific data, such as Direct Loan disbursement amounts, will have unique program data elements and edits.

ED will phase in the implementation of Common Record over the next three years. All schools must become full participants for the 2004-2005 award year, which means, at that time, all schools and third-party software providers and servicers must be able to send and receive data in XML-based Common Record formats. FSA’s EDEExpress software product will not have a Common Record module for the 2002-2003 award year, and schools will continue to exchange data in legacy formats for that year. FSA plans to have EDEExpress directly support Common Record in the future. Until then, all data received in...
Summertime has not slowed the pace of the XML Forum work groups. In mid-July the Technology Work Group completed the Postsecondary Transcript Schema with its associated sector library and posted the relevant files on the XML Forum website for community review.

The work group requests that the education community provide feedback on the schema content and format so that comments may be considered before the schema is formally published. The review period will continue through August 29. The schema may be found at www.pescxml.org/schema/. Please submit comments to alsayyeda@standards council.org.

The Technology Work Group has also posted a new version of the “XML Technical Specification for Higher Education” (v. 2.11) to the XML Forum website. The work group encourages the education community to use this publication as a guideline in their XML development and implementations. The document can be found at http://www.pescxml.org/docs/DraftTechSpec.doc.

Bruce Marton, Architecture Team Chair, Holly Hyland of the Department of Education, and Adele Marsh of AES have been working together to harmonize tag names in the Common Record format with ebXML specifications. Among the changes are the elimination of abbreviations to avoid ambiguity. They have also been focusing on data block structure issues in order to achieve congruence with XML Forum standards. The draft XML schema for Common Record V. 2.0a was released August 12th. There will be a month review period prior to its official distribution. It can be found at http://www.ifap.ed.gov/eannouncements/0812COD0304 DraftXMLSchema2pt0a.html.

On page six of this issue of The Standard is a report of the recent work of the Architecture Team in providing comment on the SEVIS XML schema developed by the Immigration and Naturalization Services and their contractor, EDS.

The XML Forum’s next meeting will be held in Spokane, WA, October 22 and 23. Mark you calendars! Watch for details on the meeting schedule, location and registration both on the pescxml.org website as well as in The Standard.
Dear Friends and Colleagues:

Last month I wrote to you about the Board strategic planning retreat and the encouraging work that we accomplished. This month I would like to share with you my goals for PESC during the coming year.

First and foremost I am focused this year on a smooth transition to a new Executive Director that will embrace PESC’s vision and mission, someone who will continue to build on Betsy’s work of moving the organization forward with the strategies laid out by the board. While no transition can be totally seamless, my goal is to ensure that this transition is positive and that the new Executive Director is successful. We are fortunate this year that the Board is unchanged from last year, providing the continuity of a group that works well together and complements each other during this time of change.

Two years ago XML was viewed by many as the answer to the problem. (It didn’t seem to matter what the problem was.) So PESC spent the past two years principally focused on XML and the development of community-based XML standards. While the need for XML standards development is ongoing, and PESC will continue to dedicate substantial resources to this effort, I believe that most of us now realize that while XML is a boon to data communication efforts, it can be just one more format to maintain if implemented without strategic thought toward standards and reusability. This leads to my next goal for the year: I want to make certain that PESC stays at the leading edge of the standardization needs of our membership. We have heard clearly, like many of you, that web services is being sold as the next great answer by the marketing machines. Recognizing that there truly is no panacea and that combining disparate systems with proprietary standards into one service will be very expensive provides me with a direction for PESC’s next big impact area.

Finally, I have a goal of forming better partnerships and more collaboration this year. I envision this collaboration on two levels. On an organizational level I am looking for ways that PESC can work hand in hand with member and non-member organizations to further the creation, acceptance and implementation of community-based standards. Every organization has its own unique strengths and weakness. By strategically partnering and collaborating with organizations that complement our strengths and weaknesses we can accomplish more than if we strive to do it alone.

On an individual level I would like to hear more from each of you this year. I want to know how we are meeting your needs and how we could better meet your needs. I also want to know in which areas you would like to be involved and where you would like to contribute. Please feel free to contact me at any time. My phone number is 317-595-1291 and my e-mail address is kriccite@salliemae.com. If you don’t contact me, don’t be surprised if you hear from me.

Sincerely,

Keith Riccitelli
Chair, PESC
Jerry Bracken  
Board Member  
Postsecondary Electronic Standards Council  

“Web services” is a term being widely used to describe just about everything done with a modem. Could you describe what “web services” really means?

“Web services” is actually a very narrowly defined, technical term, the definition of which is not intuitive from its name. “Web services” refers to the capability of web applications to request “services” from other web applications. Here is a simple example of how that might work. XYZ Bank has a web site through which it wants to offer automatic credit line approvals to certain customers at 0.5 percent above a key industry index calculated by ABC Industry Association. The only problem is that index fluctuates from day to day. Using web services technology, XYZ Bank’s web application issues a “request for service” to ABC Industry Association’s web application for the current value of the index. The ABC Industry Association’s web application recognizes the request form XYZ’s web application as a valid request and replies appropriately.

Obviously, making this simple concept work is not trivial. It requires appropriate protocol standards (which are emerging); standards for formatting the request and response messages (not a lot of progress here yet); and standards of practice which of course include authenticating and authorizing those messages.

If we can succeed in building these standards, there is a big payoff. Web applications and components that adhere to the protocol standards, data standards and standards of practice become highly “interoperable.” Integrating various software applications from different vendors or homegrown systems with each other is highly problematic, labor intensive, and therefore very expensive. Interoperability dramatically reduces the costs and problems associated with software integration.

“The first task of the Web Services Work Group will be to examine this technology and identify the key issues, leverage points, technology requirements, etc. and then to educate the membership so that we can begin to make reasonable decisions about how to move this effort forward.”
So when you hear the term “web services” think “interoperability” of applications.

Many schools have initiated Web services—covering everything from admission applications to registering for classes—for their individual campus. What elements of these services should be standardized?

A lot of institutions are looking at how to integrate into their own systems the “web services” protocols that have emerged thus far, such as SOAP (Simple Object Access Protocol). However, these efforts are using proprietary request and response messages. The IMS (Instructional Management Systems) project was an early leader in trying to take the next step. It defined industry standards for that messaging capability for learning systems. It will take a while to re-architect application systems for this new interoperability capability.

Does PESC plan to start its own task force to begin looking at the various aspects of web services as they apply to postsecondary education?

Oh, yes. There is great enthusiasm among PESC members to begin work in this area. It has such great potential benefit to our membership. It leverages or builds on the work of our XML Forum so well. In short, yes, we are commissioning a work group to beginning this effort. My personal feeling is that their work may easily become as important to PESC as the XML Forum.

In programming/creating these services many components must be determined—browser and platform compatibility, data transfer programming language, authentication, etc. Will the XML Forum’s work enable a better understanding or foundation for these determinations?

Yes. The first task of the Web Services Work Group will be to examine this technology and identify the key issues, leverage points, technology requirements, etc. and then to educate the membership so that we can begin to make reasonable decisions about how to move this effort forward.

Much information colleges need about incoming students comes from K-12 institutions. Do you foresee the need to look beyond colleges and universities and begin thinking about guiding K-12 data transfer technology as well?

There is a separate effort in the K-12 grade area, the Schools Interoperability Framework (SIF). Our interests may overlap. Where they do, we need be in a position to take advantage of the work they have already done. Fortunately, we have a reciprocal membership with SIF and communication is already taking place.

What will be the initial steps for PESC as it begins looking at web services in education?

We will be commissioning a work group with an appropriate charge and issuing a call for participation. If there is interest, any of the PESC members are free to designate representatives from their organizations to participate in this initial work group. The first meeting will take place in the early fall.
XML Forum reviews SEVIS batch process

On July 25, members of the XML Forum and several others higher education associations met with representatives of the Immigration and Naturalization Service and their EDS consultants to discuss XML standards for use in new batch processes for reporting information about foreign students.

Under pressure to publish format specifications for the SEVIS (Students and Exchange Visitors Information System) process in time for schools to implement them in January 2003, the INS indicated interest in the “XML Technical Specification for Education” produced by the XML Forum and agreed to a limited review of their XML schema before publication.

Architecture Chair Bruce Marton (University of Texas at Austin) led the intensive effort to provide a comprehensive review within one week. Tapping the expertise of Jeanenne Rothenberger (Purdue University), Tom Stewart (Miami-Dade Community College), Steve Margenau (Great Lakes), and consultant Michael Rawlins, Bruce was able to convey specific immediate concerns regarding the SEVIS implementation that the group felt should be addressed at this time. Other architectural issues were recommended for change with no expectation that they could be addressed immediately. The text of the comment letter can be found at PESCXML.org.

The XML Forum proposes these changes in the spirit of community cooperation and exchange in the hope that they will lead to the goal of creating common standards that can be used in a variety of exchanges, thus reducing the burden on the community, particularly schools.

Call for formal submission of schema to X12

Although the use of the SPEEDE EDI format for exchanging student records (via EDI transaction set 130) is constantly increasing by using the EDI Server, there is also growing interest about the possible use of an XML format for exchanging student academic records.

The XML Forum is a part of the Postsecondary Electronic Standards Council (PESC) and these two groups have been working on developing an XML format or version of the SPEEDE transaction set 130 for exchanging post-secondary academic records. Most of this work has now been completed and Bruce Marton from the University of Texas at Austin (assisted by Jeanenne Rothenberger from Purdue University, among others) has produced the XML schema for the student transcript, which is available for review at http://www.pescxml.org/schema/.

This work was also previously critiqued and approved by the AACRAO SPEEDE committee in its role as the Education Subcommittee of ANSI ASC X12. However, neither PESC nor the XML Forum is a universally recognized standards setting body—that role is played by ANSI ASC X12.

During a recent meeting of a technical subcommittee of ANSI ASC X12, members informally reviewed two XML schemas (one from the finance industry and the other from transportation) for the first time as its initial step toward approving them as ANSI standards. These two schemas will probably be reviewed again at the next meeting in October and then could possibly be given tentative approval at the February 2003 X12 meeting.

It is my hope that PESC, the XML Forum and the SPEEDE Committee (acting as the X12 subcommittee on Education) will submit the work we have done for X12 approval at the October X12 meeting. This would then be reviewed at the December meeting of the X12 technical subcommittee and could be approved as a draft standard at the February 2003 or June 2003 meeting of X12.

If anyone is interested in participating in the development of XML schemas for other uses (e.g., the acknowledgment, the request for a transcript, the application for admission, the degree audit), I’m sure PESC would welcome your institution’s participation in the development of these XML standards by becoming a PESC member. Information on becoming a member of PESC is available on its web site at www.standardscouncil.org.

—John T. Stewart, Miami-Dade Community College
(Message appearing on SPEEDE-L)
legacy formats will be translated into Common Record and processed by FSA. Results will be produced by COD and translated back into legacy formats as needed to be sent to schools. This approach allows a 100 percent cutover to COD for FSA and integration of individual legacy systems, which can then be retired as needed in the future.

**Benefits of Convergence**

Converging file formats and harmonizing them into a Common Record brings many benefits. Schools programming on their own, or their financial aid management system (FAMS) vendor, and FSA will experience an overall ease of programming as a single change can now be applied once for multiple programs. This will lead to immediate cost-efficiencies for all entities and will simplify future releases and upgrades. With an easier-to-use process, the number of electronic transactions will increase while the number of peripheral manual processes will be reduced. Easier processes and simplification across programs should also improve customer satisfaction.

FFELP and alternative loan programs service providers are committed to capturing the benefits of Common Record as well. Through NCHELP’s Electronic Standards Committee (ESC), which brings together various FFELP and alternative loan service providers along with software developers, convergence into Common Record of federal programs has been one of the major goals.

**Convergence Plans**

All schools will be required by FSA to use and process Common Record in 2004-2005. Schools not participating in Direct Lending will still need to use and process Common Record for Pell Grants, and also the FFELP and alternative loan standard—presently CommonLine—for Stafford, PLUS, and alternative loans. Service providers recognize the needs and benefits of convergence to take advantage of commonalities across programs and minimize the use of multiple formats. The challenge the FFELP community faces is the efficient and timely migration from current process and formats, with or without CommonLine to Common Record.

With Common Record version 2.0 and a new schema, FFELP and alternative loan service providers will have the necessary documentation needed to accept and process the XML-based Common Record. This approach creates a FFELP-enabled Common Record and eliminates the need for a CommonLine XML format. Organizations are free and able to continue to process CommonLine at their discretion and according to their need, making the market the determining factor in CommonLine’s use. The expectation, however, is that the Common Record version for the 2004-2005 award year will be the standard format used by FFELP and alternative loan service providers.

In order to support this migration approach, there are a variety of work groups and efforts underway. The table on the following page shows what work groups exist or are being formed, what their tasks will be, and what they plan to deliver, and identifies other supporting efforts.

—By Michael Sessa, American Student Assistance
<table>
<thead>
<tr>
<th>Workgroups and/or Efforts</th>
<th>Purpose or Contribution</th>
<th>Deliverables</th>
<th>Delivery Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESC XML Workgroup</td>
<td>Design of a single standard XML-based Common Record to support all financial aid programs, eliminate multiple flat files, and provide a simplified process for the submission of financial aid data by schools and their FAMS partners</td>
<td>Analysis of all CommonLine 5 data elements and documentation of required changes to the Common Record for 2003-2004.</td>
<td>7/1/02</td>
</tr>
<tr>
<td>ESC Business Re-engineering Subcommittee</td>
<td>Explore additional efficiencies through analysis of possible business re-engineering for FFELP processes</td>
<td>Analysis of all CommonLine 5 data elements and documentation of required changes to the Common Record for 2004-2005.</td>
<td>~3/31/03</td>
</tr>
<tr>
<td>CommonLine/Common Record convergence group</td>
<td>Evaluation of the Common Record as the basis for FFELP processing</td>
<td>Completion of a high level summary which will outline the benefits and risks of moving to a business process for FFELP that parallels the process used in COD for Direct Lending, and completion of a detailed analysis that will provide examples of the metadata for each transaction type.</td>
<td>7/31/02</td>
</tr>
<tr>
<td>PESC XML Forum for Education – Core Components Workgroup</td>
<td>Analysis and development of a combined and integrated Common Record data dictionary</td>
<td>Common Record data dictionary</td>
<td>June 2002</td>
</tr>
<tr>
<td>PESC XML Forum for Education – Technology Workgroup</td>
<td>Development of a FFELP and alternative loan schema</td>
<td>FFELP and alternative loan schema</td>
<td>Fall 2002</td>
</tr>
</tbody>
</table>
With California’s recent legislation mandating a reduction in greenhouse gases emitted by passenger cars sold in the state, a new nationwide standard for emissions was likely set. California’s 35 million residents represent 10 percent of the national car market. Thus automakers feel compelled to produce cars in the future that meet the California requirements but will be sold elsewhere.

MEMBERSHIP NEWS

PESC is delighted to welcome new members to the organization for the 2002-2003 membership year and to announce that two past members have upgraded from affiliates to full membership. Elm Resources and Educaid, both active in the past at the affiliate level, have rejoined this year as full members. We look forward to their increased leadership and voice in the organization.

New full members for the 2002-2003 year are: The University of Minnesota (George Hudachek, voting member) and Northern Illinois University (Donald Larson, voting member). Joining as affiliate members are the Schools Interoperability Framework (SIF) and InfiNET Services. The technical and functional expertise these organizations bring to PESC will be valuable contributions.

PESC AND XML FORUM MEETINGS, OCT. 22 AND 23, IN THE “OTHER WASHINGTON”

Our annual fall meetings will be held this year in Spokane, Washington, in conjunction with the 13th annual SPEEDE EDI/EC in Education Conference. A room block has been reserved for PESC members at the WestCoast Grand Hotel where the PESC and XML Forum meetings are scheduled beginning Tuesday, Oct. 22, at 9:00 am through Noon on Wednesday, Oct. 23. Plan to be there to participate in PESC business and work group activity.

Registration for this event is $95 to defray the cost of meals and meeting accommodations. An online registration form will be posted at www.StandardsCouncil.org next week, and members are urged to call the hotel soon to secure their room reservations at the conference rate of $89 for single/double occupancy. Reservations may be made by calling 800-326-8000 and mentioning the PESC rate.

If you are interested in learning more about EDI implementations at schools, come early to attend the EDI/EC in Education Conference, which begins at 1:00 pm on Sunday, Oct. 20. Program and registration information is available at http://barney.gonzaga.edu/edi/.
NCHELP has contracted with Solutionary to perform a threat analysis on the Meteor code. Solutionary will perform an Application Security Assessment that will focus on the analysis of the Java-based Meteor application. The assessment will consist of the following components: Application Design and Key Module Review, Vulnerability Analysis, and Development of Safeguards and Countermeasures. Additionally, Solutionary will perform an Internet penetration study, which will focus on the Meteor application. The penetration study will consist of the following components: Application Enumeration and Mapping as well as Application Exploitation.

OASIS and W3C recently announced that they will be partnering for a forum on security standards for web services. The forum is expected to address questions surrounding which entities are doing what for web services security standards, as well as trying to discern how the various pieces fit together. By partnering in creation of the forum the two groups hope to identify the overlapping functions of the work being done and streamline the process.

NCHELP has an agreement with Priority Technologies Inc. to perform help desk support and to host the central registry and code repository for Meteor when the network goes live in the next few weeks until the RFP that was issued earlier this year is closed. The Meteor Advisory Team will continue in its governance role to administer the move to production as well as to begin planning for the next release of the Meteor code.

OASIS has received a proposal for a Technical Committee on XML-based standards for e-Government. The proposal was issued by representatives of the United Kingdom, Finland and the United States, who consider XML-based standards “a fundamental component of enabling e-government.”

UT Austin Internet server continues to ‘speed’ along

JULY 2002

- 30,377 TS130 transcripts
- 23,142 TS131 acknowledgments
- 3,486 TS146 requests
- 3,812 TS997 functional acknowledgments
- 9,229 TS189 admission applications
- 2,382 TS138 test score reports
- 72,855 total transactions

STATE OF FLORIDA ELECTRONIC EXCHANGES OVER THE PAST YEAR

- Postsecondary Transcripts Exchanged
  Total: 267,344
  Via EDI Server: 53,258

- Other Postsecondary Transcripts Sent to School Districts: 7,865
  to Teacher Certification: 1,172

- High School Transcripts Requested (by colleges and universities)
  Total: 143,142
  Via EDI Server: 13,055

- Postsecondary Transcripts Requested
  Total: 183,422
  Via EDI Server: 25,593