PESC Conference Report

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The Postsecondary Electronics Standards Council (PESC) Fall Summit was held in Vancouver, BC on October 17-19, 2012. I have included a summary of the conference presentations and meetings below. I have supplemented this with possible implications for ACT. Links to the various presentations will be available in a couple of weeks and I will add them to this document at that time.

# Executive Summary

The conference focused on several initiatives that attempt to provide an infrastructure for exchanging data between members of the education community:

* The Common Identity and Trust (CommIT) project team demonstrated software that provides a single sign on for college prospects to access service providers (e.g, ACT, College Board, Common Application) and higher education institutions. The Collaborative (PESC, InCommon, and intenet2) announced that the CEO of internet2 was proposing to his board that internet2 fund a live pilot of the CommIT system. While ACT has not committed to the pilot, the pilot would need both ACT and College Board to be viable.
* Common Data Services (CDS) is an attempt to broaden the network of exchange partners so that transcripts and other documents may be easily exchanged between education partners. This network could transport ACT test scores.
* The Department of Education and PESC announced that all future exchange standards activity would be under the guidance of the National Information Exchange Model (NIEM). Future PESC standards will be NIEM conformant and will be created from the new NIEM Education domain.
* PESC formed the Common Education Data Standard (CEDS) User Group to coordinate the integration of CEDS into PESC standards using the NIEM framework. This work will be led by Hans L`Orange of State Higher Education Executive Officers (SHEEO) and Tony Romano of the National Student Clearinghouse. ACT will participate on this User Group.
* The White House and US Department of Education are continuing to support exchange of data through the MyData button initiative. This provides an electronic transfer mechanism for the government and vendors to electronically transfer data about an individual directly to that person. The individual can then provide this data to vendors who can aggregate it into a portfolio or who can use it provide other guidance services. As part of the discussion, PESC members expressed concerns about the security and privacy of MyData information.

ACT was prominently featured in the conference:

* As part of his presentation, the new Executive Director Michael Riley of American Association of Collegiate Registrars and Admissions Officers (AACRAO) talked about how higher education institutions could better use the data provided during the application process. He cited ACT’s Steve Kappler as stating that institutions do not effectively use the data provided to them by ACT.
* In addition to my presentation on the work of the Technical Advisory Board on NIEM conformance and automated documentation, ACT participation was recognized in connection with several major PESC efforts including NEIM, CommIT, and CEDS.

# Introductory Remarks

Michael Sessa, President and CEO, PESC

Michael reviewed the history of PESC. He emphasized the directives from OMB requiring the Federal Government to use community standards if they were available instead of creating their own. He talked about how PESC had collaborated with both the Financial Student Aid (FSA) and National Center for Education Statistics (NCES) to create standards.

Michael also discussed the intent of the PESC board to change the PESC name from PostSecondary to PK12W Electronics Standards Council. This would focus PESC on life time education standards (e.g., ePortfolio standard). Michael indicated that in any areas already covered by School information Framework (SIF), any new standards would be done in collaboration with the SIF Association.

<http://www.pesc.org>

# Canadian User Group Panel

Jam Hamidi, BCCampus

Bill McKee, Ontario College Application Service

Trudy Sykes, Ontario Universities Application Service

Kelly McMullen, ApplyAlberta

The panel members discussed their progress in automating electronic transfer of transcripts and applications using PESC standards for their member institutions. They noted that many of the high schools still can only provide pdf images but more transcripts are being transmitted in machine readable format each year. Since Colleges have student information systems like Banner and PeopleSoft, they are able to input electronic transcripts into their information systems directly.

One interesting legal issue that was raised is that Canadian law prohibits personally identifiable information (PII) like that found in transcripts from crossing national boundaries even if encrypted. This limits the use of certain vendors or servers located in the United States.

# US Department of Education (USDE) and NIEM

Mike Fillinich, Financial Student Aid, USDE

The National Information Exchange Model (NIEM) defines the methodology and artifacts for developing XML information exchanges. It came out of the Department of Justice’s need to standardize the vocabulary and semantics of various information exchanges between law enforcement agencies at different levels of government. The model is used by different Federal, State, and local government organizations as well as government organizations in Canada and Mexico. There are currently 15 domains which define applications specific semantics that are used by particular communities of interest.

Mike announced to the PESC meeting that the Department of Education headed by Financial Student Aid, National Center for Education Statistics (NCES), and the Office of the Chief Information Officer (OCIO) would apply to be the domain stewards of a new Education Domain in NIEM. Mike indicated that he would coordinate that effort which involves providing and defending a value proposition for the domain to various NIEM organizations. The basis for the domain would be the PESC core-main schema and elements from the Common Education Data Standard (CEDS).

## Implications for ACT

With the US Department of Education adopting NEM, all XML standards development including PESC, School Information Framework (SIF), and the XML representation of the Common Education Data Standard (CEDS) will most likely adopt the NIEM model. For ACT, the NIEM repository and catalog of Information Exchange Package Documentation (IEPD) should be a source of interchange protocols that ACT can use with its partners without having to create proprietary exchange protocol. More importantly, NIEM will become the standard for the vocabulary for education and workforce data objects so that ACT should align its data definitions with those used by the community in NIEM. Finally, ACT should continue to work closely with the Education community as it coalesces around the NIEM model by continuing its engagement with PESC and participating more fully in the SIF Association, and CEDS.

# Financial Student Aid and Authentication

Mike Fillinich, Financial Student Aid, USDE

Mike explained that FSA information systems use different authentication databases for each system. The goal of FSA is to provide internal and external users of its services with a single logon, to improve identity proofing, and rationalize privilege levels. This program is targeted to be complete in four years.

# MyData Button

Jeff Alderson, ConnectEDU

Jeff explained how ConnectEDU is assisting with implementing the joint White House/ USDE initiative to make government and vendor data available to individuals. This initiative allows students and others to obtain their data so that they may use that data to assist in their life choices. For example, they may wish to download data into an ePortfolio to be used in education or job applications. Any vendor wishing to participate can add a MyData button to their web site and provide the data in a multipart MIME document as specified by the standard. The payload may be plain text, PDF, XML, or any structure that can be described with a MIME type. This data may then be transferred to a third party who will use the data to aid the user by aggregating the information or by using it as input into a service application.

The discussion that followed raised security issues about the ability of 16 year old to judiciously protect financial data, grades, scores, and other personal information. It was also noted that this data will not have official status and thus could only be used to inform. It would not substitute for official documents.

## Implications for ACT

This initiative is worth tracking as it may provide marketing and product opportunities for ACT. As part of the ACT initiative to provide better customer information, ACT can gather student information from sources other than ACT (e.g., FAFSA data, transcripts) through student initiated MyData transfers, and combine this data with ACT data to provide services to the student.

<http://www.ed.gov/edblogs/technology/mydata/>

# Electronic Transcript Exchange

Mark Cohen, Parchment

Mark discussed the data showing that there is significant savings enjoyed by schools that use electronic transfer of transcripts. While most of the transfers are still PDF, there is an increase in the use of EDI and XML data.

## Implications for ACT

As more schools and Student Information Systems gain the capability to exchange XML data, the infrastructure will emerge so that ACT’s costs to provide test scores to institutions of higher education will be significantly reduced using the infrastructure supplied for transcripts. The critical mass is not available to reduce ACT’s costs at this time, but ACT could start providing XML versions of our test scores using PESC test score reporting XML standard so that we can connect with the early adopters of XML technology and develop our services in this area.

<http://info.docufide.com/HE.Eduvent_dwnld.html>

# American Association of Collegiate Registrars and Admissions Officers (AACRAO)

Michael Riley, AACRAO

Michael Riley is the new Executive Director of AACRAO. He summarized the AACRAO major initiatives:

1. The impact of Family Education Rights and Privacy ACT (FERPA) on admissions and student data
2. International credit evaluation
3. Multiple University Credit
4. Electronic Exchange

He mentioned that the “Texas Server” which is used as the hub for many transcript exchanges will be replaced by servers associated with the National Student Clearinghouse. The Clearinghouse has agreed to provide this service free of charge.

## Implications for ACT

Michael provided some free publicity for ACT. He quoted Steve Kappler as saying that schools do not use much of the data supplied by ACT other than the scores themselves. He quoted a percent. (I wrote down 3% but that seems low.) The point is that major educational institutions such as AACROA are paying attention to ACT as a supplier of credible information to be quoted publically, and that AACRAO is going to emphasize to its members that they should make better use of available data for decisions about college admission. This fits well with ACT’s strategy to be the leading provider of information.

<http://aacrao.org/index.aspx>

# Common Identity and Trust (CommIT) Collaborative

Ann West, intenet2/InCommon

Nathan Klingenstein, internet2/InCommon

Arnie Miles, Georgetown University

Tim McGraw, Common Application

Idan Shoham, Hitachi ID Systems

Dave Moldoff, Academy One

CommIT is a joint venture between PESC, InCommon, and internet2. The goal of the Collaborative is to provide students with a single identity so that they may seamlessly access various services in order to apply to institutions of higher education. This requires that the Collaborative use a common identity provider that will allow for single sign on to Collaborative members sites. In addition to Universities and Colleges, organizations such as the Common Applications, National Student Clearinghouse, ACT, and College Board have actively participated in the CommIT design.

Ann West announce that Dave Lambert , CEO, internet2 will bring a proposal to the internet2 board to fund an initial pilot of CommIT. The pilot would include five or six major universities and several service providers such as the Common Applications, ACT, and College Board. Penn State and Georgetown have already volunteered for the Pilot.

Dave Moldoff demonstrated a working model of the single sign-on framework using a mock up of a College Board site. He demonstrated how the student would select the CommIT identity service and how, once established, the credential could be used on other sites such as the Common Application. The identity management system was donated for the demonstration by Hitachi ID Systems.

# Implications for ACT

The participation of ACT in both the pilot and the Collaborative has the following advantages:

* If internet2 funds the pilot, this project will get significant attention from the educational community including the 80 members and affiliates of PESC and the 462 participant in InCommon. Of course, InCommon members include most of our significant higher education customers.
* if CommIT proves to be viable, the business model includes payment for identify proofing services. ACT already does this proofing and could obtain significant revenue for this service.
* As part of the Collaborative, ACT would have an additional student identifier that could be used to tie ACT data to data from other Collaborative members. This would make it possible to develop reports that include data currently unavailable to ACT without using sophisticated matching or having to deal with third party personally identifiable information to complete this matching.
* Since applying to individual institutions will be streamlined by CommIT, prospects would apply to more institutions than in the past. As a result, ACT would increase the number of additional score reports requested.

ACT could participate in the pilot as a service provider by standing up a registration site for the ACT that would allow accounts provisioned by CommIT. The changes to the web application would be the following:

* Provide a link using the CommIT icon to the identity provider site so that the student could provision an account. As currently designed, the identity provider would brand the account creation pages with the source organization’s branding.
* Provide a link to the identity provider for login to the ACT site (and all other sites under single sign on). This would also be branded as an ACT login and would return control to the ACT site by providing a Security Assertion Markup Language (SAML) certificate to establish the credentials of the user.
* If the student is already logged in to CommIT though another service provider, ACT would evaluate the SAML certificate when the student arrived at the ACT site and would allow them access to the registration site if the credentials were appropriate.
* Provide the CommIT identifier in the ACT score reports to the university participants in the pilot.

The development effort for this could leverage facilities for federated identity management processing available with Apache.

<https://spaces.internet2.edu/display/InCAdmissions/Home>

# Common Data Services (CDS) Task Force

Jam Hamidi, BCCampus  
Tim Calhoon, California Community Colleges (CCC) Technology Center

The Task Force demonstrated a set of standard web services used to transfer transcripts and other payloads across a member network. The code for these services will be provided as public domain software. A directory of participating organizations will be supplied to route the payload to the appropriate school or vendor. For example, XAP Corporation currently processes transcript exchanges between subscribing schools. With CDS, schools registered with XAP could send and receive transcripts from schools and vendors in the CDS network even if these schools did not subscribe to XAP.

# Implications for ACT

If a sufficient number of institutions implement CDS for transcripts, the same network could be used to transport test scores. This would simplify the current process by which ACT sends out CDs or proides SFTP sites.

# Common Education Data Standard (CEDS) User Group

Hans L`Orange, State Higher Education Executive Officers (SHEEO)

Tony Romano, National Student Clearinghouse.

This new User Group had its initial meeting at the PESC Summit. The intent of this group is to coordinate the integration of PESC and CEDS standards using the NIEM framework.

# Change Control Board (CCB) and Technical Advisory Board (TAB) Reports

Kristi Blabaum, Great Lakes Higher Education

Michael Morris, ACT, Inc.

The CCB and TAB have been working together to transform PESC schemas into NIEM conformant versions. This project has involved:

* Establishing element and enumeration definitions for inclusion in the transformed schema
* Identifying schema structures that deviate from NIEM naming and design rules and determining how to remedy those deviations
* Identifying type inconsistencies between elements with the same name and selecting one type definition.
* Creating Document Object Model (DOM) code that will transform PESC schemas into NIEM conformant schemas.