

SOA and Enterprise Learning Integration: Challenges and Solutions through Interoperability Summit

Join us for the last Quarterly Meeting of the year which will be held at Oracle in Redwood Shores, California the 19-22 October. In addition to Project Group meetings, we will have a **SOA and Enterprise Learning Integration: Challenges and Solutions through Interoperability Summit** on Thursday. Further details and signup for the meeting can be found at <http://www.imsglobal.org/oct2009meeting.cfm>

Enterprise integration has never been more important for education. Service oriented computing has become the dominant approach for achieving such integration but there are still many challenges to overcome. At the same time, the return on investment for such an approach is still unclear. In the past few months IMS has released several works to improve enterprise integration including:

- The “Learning Information Services (LIS) Specification” – defines how a wide range of student and course information can be exchanged between learning and administration systems;
- The “Basic Learning Tools Interoperability Specification (BasicLTI)” – providing a simple mechanism by which third party tools can be launched and interact with a learning management system;
- The “Adoption of Service Oriented Architecture (SOA) for Enterprise Systems in Education: Recommended Practices” White Paper – recommended practices for the adoption of SOA to improve interoperability to realize cost savings and to align IT services more closely with the educational services for the institution.

During this Summit we will look at the set of enterprise integration challenges that face education, including: identity management, user provisioning and outcomes reporting. We will explain how the current best practice deployment approaches can provide a significant improvement on managing and delivering learning. Finally, we will look at how we will continue to improve enterprise integration for education.

Contents:

- SOA and Enterprise Learning Integration: Challenges and Solutions through Interoperability Summit
- Submit your LIA Nomination Now!
- Common Cartridge Alliance News
- Five Winners Take Honors at the Learning Impact 2010 Regional Competition in Korea
- Adoption of Service Oriented Architecture (SOA) for Enterprise Systems in Education: Recommended Practices Final Whitepaper
- Presentations
- Workplan
- New Members and Member News
- Meeting Calendar
- Workshops and Presentations

08:15-08:45	Registration
08:45-09:00	Welcome Remarks Rob Abel , Ed.D. – Chief Executive Officer, IMS GLC
09:00-09:45	How Integration Challenges Prevent Innovation in Learning and Student Services for Online Learners Curtiss Barnes – VP Education & Research Strategy, Oracle
09:45-10:30	David Murray - Sungard Higher Education
10:30-10:45	Break
10:45-12:00	Today's Highest Priority Administrative System Integration Challenges: What the Learning Information Services Specification Offers Panel TBC
12:00-13:00	Lunch
13:00-13:45	The Learning Information Services Benefits in Action Michael Feldstein , Oracle
13:45-14:15	The Learning Information Services Alliance and Conformance Colin Smythe , IMS GLC
14:15-14:45	Challenges and Opportunities for SOA Standards and Tools Steve Harris – Senior VP Application Server Development, Oracle
14:45-15:00	Break
15:00-15:45	SOA in Education -White Paper Presentation & Q&A Session Austin Laird – Oracle, Co-chair IMS SOA Project Group
15:45- 16:00	Closing Remarks Rob Abel , Ed.D. – Chief Executive Officer, IMS GLC



Submit your LIA Nomination Now!



Now is the time to submit your nominations for the Learning Impact 2010 awards. The deadline is 31 December 2009. Details are posted at:

<http://www.imsglobal.org/learningimpact2010/awards.html>

The **Learning Impact Awards** are designed to recognize the most impactful use of technology worldwide in support of learning. This unique program evaluates established, new, and research efforts in context at an implementing learning institution. Check out past winners at:

<http://www.imsglobal.org/learningimpact2009/lia2009winners.html>

<http://www.imsglobal.org/learningimpact2008/2008LIAwinners.html>

<http://www.imsglobal.org/learningimpact2007/winners.html>

Learning Impact 2010 will be held in Long Beach, California, USA the 17-20 May 2010.

Learning Impact 2010 will have exhibition space this year for an entire day. Want to find out more about sponsorship and exhibitions? Contact Lisa Mattson at lisa@imsglobal.org



Common Cartridge Alliance News

Meetings at Redwood Shores

Common Cartridge Meetings, 19-20 October 2009

The next IMS quarterly meeting (19-23 October 2009) is being hosted by Oracle at Redwood Shores, Calif. Monday, 19 and Tuesday, 20 including a series of sessions open to participants in the CC Alliance – these include a meeting of the CC APMG, a Testfest, and a joint session with the QTI group to discuss packaging of QTIv2.1 in CC. The agenda for these two days is as follows:

Monday 19th – CC Accredited Profile Management Group

09:00-09:15	Welcome
09:15-10:00	Overview of CC for new comers
10:00-10:30	CC APMG requirements for membership and voting rights 1. public commitment to implement or use CC 2. review member status and voting rights
10:30-11:00	CC Alliance & APMG communication channels
11:00-11:20	Break
11:20-12:30	Conformance Achieved 1. D2L case study 2. Moodle case study 3. Giunti Labs case study 4. ANGEL / LoneStar College case study
12:30-13:30	Lunch
13:30-14:00	Conformance process for CC packaging tools (vote)
14:00-14:30	Conformance process for CC QTI platforms (vote)
14:30-15:00	Conformance process for CC QTI packaging tools (vote)
15:00-15:20	Break
15:20-15:40	Spec revisions for CCv1.1 (vote)
15:40-16:00	Schema revisions for CCv1.1 (vote)
16:00-16:30	K12 Best Practice section and Overview document
16:30-17:00	CC Interoperability Testing

Tuesday 20th - Testfest

09:00-10:00	Digital Learning Connection 1. Tennessee Board of Regents requirements/scenario 2. Web Catalogue Tool development
10:00-10:30	Discussion - New Tools
10:30-10:50	Break
10:50-12:30	CC Demonstration & Trials 1. Icodeon CC player 2. Giunti eXact
12:30-13:30	Lunch
13:30-15:00	CC/QTI joint session on QTI packaging in CC
15:00-15:20	Break
15:20-17:00	CC/QTI joint session on QTI packaging in CC (con't)

Outcomes Anticipated:

- Clarity on who is participating in the APMG, voting rights, & how communications are going to be conducted
- Reviewing status of conformance to date and making any necessary adjustments

- Clarify how to achieve CC QTI v1.0 conformance
- Capture progress on CC v1.1 and establish priorities timeline
- Make sure CC and DLC are on track for TBR needs and establish timeline

Cartridge Export Conformance Test

Given that packaging tools often auto-generate identifiers and apply whitespace differently, CC can no longer rely upon the CP binary identity test for conformance testing CC packaging tools. An alternative approach has been proposed and will be discussed at the October meeting. The proposed approach is outlined below.

Each of the cartridges in the valid cartridge test data set are loaded into the tool and the contents saved locally in the tool's native database.

The tool editor is used to reconstruct each test cartridge in turn, each being exported as a cartridge. The exported cartridge should be renamed to distinguish it from the original test cartridge – i.e., ccvtd0008v1p13.zip would be saved as e.g. fred0008.zip.

There is no requirement that the original cartridge metadata be carried forward to the exported cartridge (it is a new cartridge), but a new block of cartridge metadata should be created for the exported cartridge.

The person conducting the test should compare the original cartridge to that exported to ensure that:

- There is no loss of content
- There is no loss of resource metadata
- Any resources requiring authorization, have the authorization requirement carried through to the exported cartridge.

Each of the exported cartridges should be tested using the latest version of the corresponding CC test tool – i.e., for CCv1.0 conformance the latest version of the CCv1.0 test tool should be used.

Upon satisfactory completion of the above tests, the applicant should update their entry in the product directory

<http://www.imsglobal.org/productdirectory/directory.cfm>

Finally, email kriley@imsglobal.org stating:

- the date that testing was completed,
- the product tested (and version number),
- the conformance established (e.g., CCv1.0, CCQTIv1.0, CCLitev1.0),
- the version of the CC test tool used and
- the version of the CC valid cartridge test data set used.

This procedure is currently under consideration by the CC APMG and comments (via the CC Alliance forum) are invited from Alliance participants prior to the next meeting.

Common Cartridge Valid Cartridge Test Data Set

A new version of the CCv1.0 valid cartridge test data set is available from the CC Alliance website at:

<http://www.imsglobal.org/developers/alliance/compliancetesting.cfm>

In the new version, incorrect schema location mappings have been corrected. This does not impact the test as the CC test tool holds the CC schema locations internally, but it should help to ensure that the cartridges validate correctly if loaded into a third party tool.

Common Cartridge Test Tool for the Mac platform

The CC test tool is distributed as a java tool, with versions customized for use on Windows, Linux and MacOS operating systems. We are having to move to Java v1.6, which is only available for the MacOS platform in a 64 bit format, hence moving forward, new versions of the CC test tool will only be available to Mac users in the 64 bit format.



Five Winners Take Honors at the Learning Impact 2010 Regional Competition in Korea

16 September 2009 – Seoul, Korea and Lake Mary, FL. -- The IMS Learning Impact Awards (LIAs) 2010 Asia-Pacific Regional Competition, which was recently held in conjunction with Asia's "e-Learning Exposition & Conference" culminated with five winners out of twelve contenders from three countries, progressing to the global competition next year.

The Learning Impact Awards (LIAs) recognize use of technology to improve learning across all education segments and in all regions of the world. The LIA awards are unique in that they recognize the use of technology in context. Nominations include not only information about the technology but how it is used by an education provider. In addition, the entries are evaluated according to eight criteria of impact, including improving access to learning, improving affordability of learning, and improving the quality of learning.

The judges for the regional competition included Dr. Rob Abel, Ed.D. Chief Executive Officer of IMS Global Learning Consortium, Dr. Dae-Joon Hwang, CEO of IMS Korea, and Dr. Byoung-Rho Lim, a professor at Kyung Hee University.

The five winners of the regional competition are now invited to continue in the global LIA competition which is held in conjunction with IMS Global Learning Consortium's annual conference, Learning Impact 2010 which will be held in Long Beach, California, USA the 17-20 May 2010.

The winners of the IMS Global Learning Impact Award 2010 Asia-Pacific Regional Competition are:

Organization (Nation)	Title	Description
Daulsoft (Korea)	My TeachingMate @ Young-sin High School	The TeachingMATE Tool is educational material authoring software. Every Instructor can execute online teaching & learning activities in his e-class on the school site with various online educational functions.
Jungang Education Institute for Public Servants (Korea)	Cyber Education Center for public servants	Cyber Education Center for public servants have built and operated an e-learning atmosphere to strengthen the abilities of public servants and cultivate creative human resources.
Ngee Ann Secondary School (Singapore)	GetsmART in Ngee Ann Secondary School	GetsmART is an art gallery designed by teachers in the social networking world of Second Life to help teachers use works of visual art in their curriculum to strengthen students' thinking and learning in a 3-dimensional virtual world.
Sigong Media (Korea)	The elementary e-curriculum library for educators	Curriculum content including subject activities in science, social studies, morality, music, art, physical education, etc. Curriculum activity data based on video clips, images, animations, flash data, extra curriculum data, and assessment data are offered in a compact and integrated manner.
SK C&C (Korea)	Digital Text book (Digitalized English Textbook by grades)	The product is designed to gain suitable educational achievement for each learner through individual studying during regular classes



About IMS Global Learning Consortium (IMS GLC)

IMS Global Learning is a nonprofit member organization that strives to enable the growth and impact of learning technology in higher education, K-12, and corporate education worldwide. IMS GLC members are leading corporations, higher education institutions, school districts and government organizations who are enabling the future of education by developing interoperability and adoption practice standards for educational and learning technology. IMS GLC sponsors Learning Impact: a global program and conference that recognizes the impact of learning and

educational technology on access, affordability, and quality - the world's most significant educational challenges. For more information, visit <http://www.imsglobal.org>

About Korea Education & Research Information Service (KERIS)

The KERIS is a national institution which specializes in enhancing the effective use of ICT in education and research. Established in 1999, KERIS supports the establishment and implementation of ICT in education policies while conducting research and analysis and providing quality education and research information services.

According to the ICT in Education Master Plans I~III of Korea, KERIS has undertaken various initiatives to improve teaching and learning in primary and secondary education: 1) National Teaching-Learning Center-EDUNET, 2) Cyber Home Learning System, 3) Digital Library System, 4) Educational Resource Sharing System, 5) National Education Information System for effective online educational administration, 6) National standardization of educational metadata and quality assurance system.

To enhance the quality of academic research in higher education, KERIS has successfully established and maintained the Research Information Service System. Also, KERIS has sought to promote international exchanges and cooperation to narrow the global digital divide in education by supporting developing countries in using ICT in education and organizing international seminars and joint projects. visit <http://english.keris.or.kr>

About IMS Korea

IMS Korea is an organization in which KERIS and representative businesses leading the e-Learning market have participated and carried out various activities to develop international and national standards as well as group standards. At present, KERIS is in charge of operating the secretariat, and its members include SK C&C, Tekville, DUNet, 4CSoft, Daulsoft, CTUnion, and Ubion. IMS Korea has maintained close collaborative relationships with IMS GLC and performed the following activities.

The activities of IMS Korea are:

1. Operating IMS Korea projects group in accordance with the projects of IMS GLC
2. Developing a business model and creating a new e-learning market
3. Fostering Korea's e-learning professionals and providing consulting
4. Supporting e-learning standards (IMS or KS) application agencies
5. Forming foundation for the future launch of Asia-Pacific IMS (Tentative name)

Director, Yong-Sang Cho, Ph.D.

International Information Analysis & Standardization Team
Educational Information & International Cooperation Center
Korea Education & Research Information Service (KERIS)

e-Mail : zzosang@keris.or.kr



Adoption of Service Oriented Architecture (SOA) for Enterprise Systems in Education: Recommended Practices Final Whitepaper

IMS has released the final Adoption of Service Oriented Architecture (SOA) for Enterprise Systems in Education: Recommended Practices. The whitepaper filters the information on the current state of SOA concepts, tools, and practices and provides guidance on when adoption of SOA is appropriate in education to overcome some of its core challenges. Based on both theoretical practice and real world expertise, the contributors to this white paper have worked to provide real world use cases where SOA adoption has proven to be beneficial. The outcome is a prescriptive approach to SOA concepts as exemplified through use cases with a descriptive approach to the potential tools and practices of SOA implementation.

The intended outcome of SOA adoption as recommended in this white paper is to improve interoperability both internal and external to an institution, to realize cost savings over time by adopting reusable and open standard IT services, and to align IT services ever more closely with the services that the institution provides to its ecosystem. These outcomes can be achieved today in education through a phased service oriented approach.

Download a copy at: <http://www.imsglobal.org/soa/index.html>



Presentations

Download the **New Generation Learning & Educational Technology Standards** presentation where Rob Abel presents on interoperability standards and educational trends in K-12, as well as an update on IMS and ADL cooperation from a workshop at EdNet in Chicago, Illinois.

<http://www.imsglobal.org/articles/getpdf.cfm?DocName=IMS-ADL%20EdNet%200909.pdf>

Dr. Chuck presented a webinar **Understanding and Implementing Basic LTI** to IMS Contributing and Affiliate Members on 28 September 2009. The presentation introduces the IMS Basic LTI specification and covers the specification in technical detail. This webinar is useful for organizations reviewing the specification as part of the IMS Internal Draft (CM/DN) process as well as organizations planning to implement the Basic LTI specification for their tool or learning management system.

The Basic LTI specification is now ready for IMS Contributing and Affiliate Members to begin adopting ahead of the completion of the full LTI v1.0 specification still under development by the project group.



Workplan

A description of the current status of development work happening within IMS GLC.

Group	Description
Common Cartridge (CC) Application Profile Management Group	The CC APMG is gathering and evaluating requirements for the next version of the Common Cartridge specification and is also managing the specification development process for the Content Packaging v1.2 spec.
Learning Information Services (LIS) Project Group	The Learning Information Services Project Group has completed the Internal Draft of the specification. IMS Contributing Members and Affiliate Members are implementing the spec and preparing for interoperability demonstrations.
Question and Test Interoperability (QTI) v2.1 Project Group	The QTI Assessment v2.1 Project Group is developing a variety of profiles of the v2.1 specification, including regional profiles and a profile of CC v1.0 implementation of QTI v1.2.
Learning Tools Interoperability (LTI) Project Group	The Learning Tools Interoperability Project Group is working on the Internal Draft of the LTI specification and completing the BasicLTI spec describing the interaction of LTI loaded Common Cartridges (v1.1).
AccessForAll Project Group	The AccessForAll Project Group is working on the AccessForAll v2.0 Base Document version of the specification.
Learning Object Discovery and Exchange (LODE) Project Group	This group is working on Base Document version of the v1.0 specification.
K12/Schools Project Group	This group is working with the CC APMG and has completed an overview and best practices document that informs the CC v1.1 spec of K12/Schools requirements.
Student Introduction to eLearning (SIEL)	The SIEL group is working on the Internal Draft of their document and collecting peer reviewed research to identify current best practice in the area of elearning introduction.
Targeted Retention Systems (TRS) Project Group	This group is developing adoption practices for the use of TRSs to improve the effectiveness of institutions' retention efforts by reaching the right student at the right time with the right intervention.
Learning Enterprise Leadership-Learn SAT	This group is reviewing the current IMS Learning Satisfaction and Trends (Learn SAT) report methodology and survey for future use. This group will develop a Recommendations Report providing guidance and direction to future Learn SAT activities (research and reporting).
ePortfolio PUFSIG	This group is reviewing implementations of the ePortfolio v1.0 specification, additional use cases, and future needs as it considers a new version of the specification.
Simple Sequencing PUFSIG	This group is looking to revise the Simple Sequencing specification to address sequencing for personalized learning, use of Learning Design, requirements for constructivist models, and the need for higher levels of interoperability in practice.
Enterprise Learning Systems and Applications Procurement (ELSAP)	This group is seeking to create a reusable template of commonly-accepted LMS features and interoperability requirements that enable enhanced selection of learning enterprise applications.
Libraries	The group will define standards for connecting content from libraries to the e-learning tools where students do their work.



New Members and Member News

We are pleased to announce and welcome the following organizations as new **Contributing Members**:

Marist College
<http://www.marist.edu/>



University of Mary Washington
<http://www.umw.edu/>



Affiliate:

Excel Public School

Common Cartridge Alliance:

SoftChalk LLC



Meeting Calendar

- © 19-22 October 2009 – Quarterly Meetings: Oracle, Redwood Shores, California, USA <http://www.imsglobal.org/oct2009meeting.cfm>
- © 8-11 February 2010 – Quarterly Meetings: Florida Virtual School, Orlando, Florida, USA
- © 17-20 May 2010 – Learning Impact 2010: Long Beach, California, USA <http://www.imsglobal.org/learningimpact2010/index.html>
- © 15-18 November 2010 – Quarterly Meetings: Lone Star College, The Woodlands, Texas, USA

Members interested in hosting future IMS GLC Meetings should contact Lisa Mattson at lisa@imsglobal.org



Workshops and Presentations

- © 29 October 2009 - Rob Abel **From CMS to Learning and Teaching: Trends in Digital Learning Content and Web 2.0 Integration** Session 2, 9:50 - 10:25am Room: Curacao 5. **SLOAN-C** - Orlando, Florida, USA <http://www.sloanconsortium.org/aln>
- © 4 November 2009 - **Digital Learning Resources: Are e-Books and e-Book Readers Going to Succeed?** 10:30-11:20am Meeting Room 401-403
IMS Update 4:55-6:10pm Korbel Ballroom 1E/F
Educause - Denver, Colorado, USA <http://net.educause.edu/e09>
- © 2-4 December 2009 - **Online Educa** - Berlin, Germany
<http://www.online-educa.com/>

