![IMS GLOBAL Learning Consortium — Better Learning From Better Learning Technology]

Competencies & Academic Standards Exchange Checklist and RFP Language

Background

United States K-12 institutions made a shift to standards-based education in the mid 1990s as a result of many factors. The ground-breaking work, A Nation at Risk, was pivotal to this transition. Regardless of the factors that led to this change, today nearly all K-12 institutions have adopted some version of standards-based education.

The Barriers

As a result, K-12 institutions require the learning platforms, tools and applications to have standards-alignment functions within them. Currently various educational products are using different strategies for representing the standards.

1. **Data Aggregation**
    There is no quick and efficient way to aggregate performance data tied to standards across multiple systems.

2. **Content Aggregation**
    Furthermore, aggregating content into a learning object repository from multiple systems is a challenge.
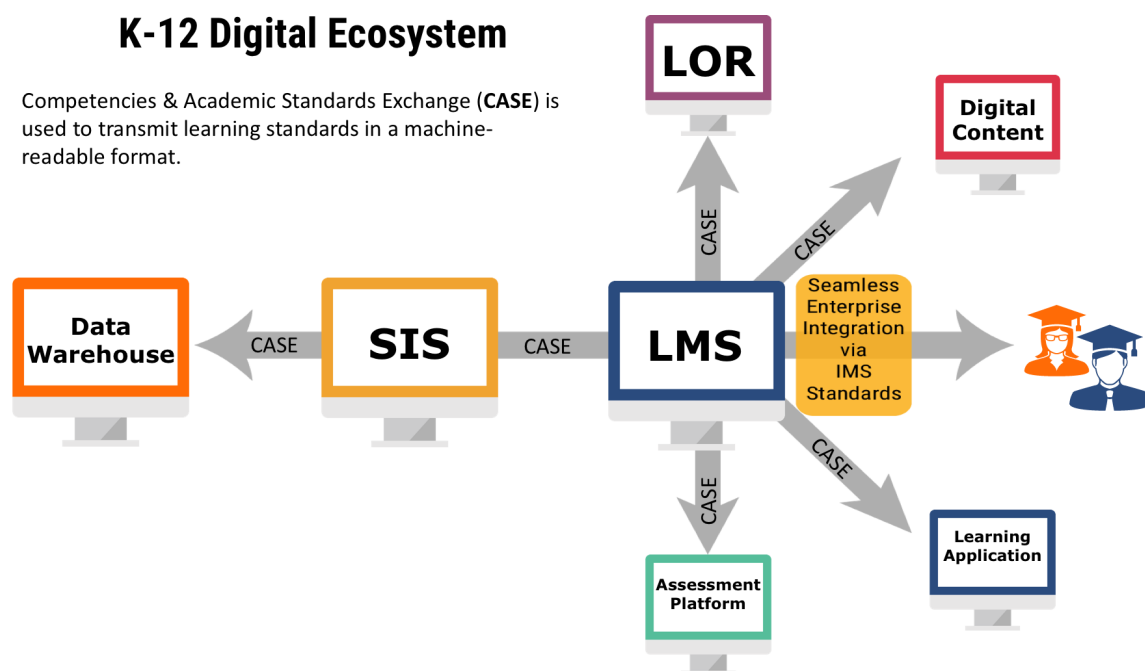
3. **Student Information System Data**
    The student information system which stores high stakes assessment data and assignments in a gradebook that are aligned to standards are challenged to ingest information from other sources.

Solutions

IMS Global Learning Consortium developed the Competencies & Academic Standards Exchange (CASE) standard. CASE is used to exchange information about learning and education competencies. CASE also transmits information about rubrics and criteria for performance tasks, which may or may not be aligned to competencies. By implementing CASE, it is possible to electronically exchange competency definitions so that applications, systems, and tools can readily access and manage this data. Having universal identifiers for education

competencies makes it possible for any of these tools or applications to easily share information between the systems. These tools may include learning management systems, assessment tools, curriculum management applications, certificate and competency-based evaluation systems and any other tool, process or content that aligns to or references a competency or framework. This framework for education competencies makes it possible to define relationships within a competency framework or between two separate frameworks.

K-12 Digital Ecosystem

Competencies & Academic Standards Exchange (**CASE**) is used to transmit learning standards in a machine-readable format.

CASE Specification Details

The CASE v.1 specification can be found here: https://www.imsglobal.org/case.

CASE services are defined as a RESTful API.

CASE provides a framework for provisioning and transmitting all of the following:
- Competency Framework Documents - original competencies or academic standards documents
- Competency Framework Items - statements of what the learner will know and be able to do
- Competency Framework Associations - relationships between entire standard sets or individual standards and courses
- Competency Framework Rubrics - instruments used to delineate performance expectations around a task, product or performance which may or may not be aligned to standards

Suggested RFP Language

The district is requesting support for CASE version 1.0. Evidence of an active IMS Conformance Certification must be provided by including the current registration number as listed in the IMS Global Conformance Certified Product Directory. See http://www.imscert.org.

CASE Checklist

What is your IMS Conformance Certification number?	
If your product is not currently certified, will your product be certified by DATE?	
Are you a member of IMS Global Learning Consortium?	
If you are not a member, are you familiar with IMS Global Learning Consortium?	
Required Student Role Functionality *As a student, I want to be able to monitor my learning by the most discrete level of the academic standard. I use a variety of digital learning content, assessments, and platforms in my classroom. I need to be able to see my progress across all activities including assessments and teacher observations. I use this information to help me know my strengths and where improvement is needed. This helps me choose future learning activities.*	
1.0 See my mastery against standards.	
1.1 Recommendations for future learning progressions are provided.	
1.2 Recommendations for learning resources based on previous results are provided aligned to standards.	
2.0 See my user analytic data (time on task, etc.) by standard.	
2.1 My analytic data should be aggregated to a single platform or warehouse.	
2.2 I am able to see a readiness/prediction indicator for high-stakes assessment.	

3.0 Extract my electronic Transcript including my progress against standards.	
4.0 Search for learning objects by standard.	
4.1 Where federated search is possible, I will be able to view results from multiple sources	

Required Parent Role Functionality
As a parent, I want to be able to monitor my student's individual learning by the most discrete level of the academic standard. My student uses a variety of digital learning content, assessments, and platforms to learn. I need to be able to see my student's progress across all activities including assessments and teacher observations. I use this information to help monitor my student's success and to help my student choose future learning activities.

1.0 See my student's mastery against standards	
1.1 Recommendations for future learning progressions are provided.	
1.2 Recommendations for learning resources based on previous results are provided aligned to standards.	
2.0 I want to see my student's analytic data (time on task, etc.) by standard.	
2.1 My student's analytic data should be aggregated to a single platform or warehouse.	
2.2 I am able to see a readiness/prediction indicator for my student with regard to high-stakes assessment.	
3.0 Extract my student's electronic Transcript including my progress against standards.	
4.0 Search for learning objects by standard.	
4.1 Where federated search is possible, I will be able to view results from multiple sources	

Required Teacher Role Functionality

As a teacher, I want to be able to monitor each student's individual learning by the most discrete level of the academic standard. I use a variety of digital learning content, assessments, and platforms in my classroom. I need to be able to see each student's progress across all activities including those that I measure through assessments and observations that I deliver. I use this information to help me plan future learning activities for each student and to help each student choose their own future learning activities.	
1.0 Search for learning objects by standard.	
1.1 Where federated search is possible, I will be able to view results from multiple sources	
2.0 See assessment results from a variety of sources organized by learning standard.	
2.1 Results can aggregate across platforms for individual students.	
2.1.1 A summary score from each source can be viewed.	
2.1.2 Individual assignment scores from each source can be viewed.	
2.2 Results can aggregate across platforms for groups of students.	
2.2.1 A summary score from each source can be viewed.	
2.2.2 Individual assignment scores from each source can be viewed.	
3.0 See student user analytics data from multiple sources by learning standard.	
3.1 Analytics can aggregate across platforms for individual students.	
3.1.1 A summary score from each source can be viewed.	
3.1.2 Individual assignment scores from each source can be	

viewed.	
3.1.3 I am able to see a readiness/prediction indicator for high-stakes assessment.	
3.2 Analytics can aggregate across platforms for groups of students.	
3.2.1 A summary score from each source can be viewed.	
3.2.2 Individual assignment scores from each source can be viewed.	
3.2.3 I am able to see a readiness/prediction indicator for high-stakes assessment.	
4.0 Align content to learning standards	
4.1 Align teacher-created/uploaded content	
4.2 Align assessment items	
5.0 Apply standards as a metatag in a batch process.	
6.0 Determine remediation, acceleration, and extension activities for a student using a recommendation engine.	
Required Building/District Administrator Functionality *As a building/district administrator, I want to be able to monitor the progress of students in my building/district by the most discrete level of the academic standard and also be able to see progress at the standard level.*	
1.0 Create a crosswalk between various sets of standards.	
2.0 Apply standards as a metatag in a batch process.	
3.0 See student user analytics data from multiple sources by learning standard.	

3.1 Analytics can aggregate across platforms for individual students.	
3.1.1 A summary score from each source can be viewed.	
3.1.2 Individual assignment scores from each source can be viewed.	
3.2 I am able to see a readiness/prediction indicator for high-stakes assessment.	
3.3 Analytics can aggregate across platforms for groups of students.	
3.3.1 A summary score from each source can be viewed.	
3.3.2 Individual assignment scores from each source can be viewed.	
3.3.3 I am able to see a readiness/prediction indicator for high-stakes assessment.	
4.0 Apply standards as a metatag in a batch process.	
5.0 Determine remediation, acceleration, and extension activities for groups of students using a recommendation engine.	
6.0 Ability to edit standard alignments on learning objects.	
6.1 Ability to edit on teacher-created content.	
6.2 Ability to edit on procured content.	
7.0 Ability to search for course shells and units of instruction based on learning standards.	
7.1 Associate course shells to a set of learning standards.	

7.2 Associate units of instruction with a set of learning standards.	
Required Technical Administrator Role Functionality *As a technical administrator, I want to be able to easily apply the appropriate set of learning standards to platforms, tools and applications.*	
1.0 Ingest academic standards in CASE format to an LMS, SIS, LOR or other platform or application.	
2.0 Ingest Common Cartridges from external sources aligned to standards in a CASE format.	
3.0 Apply standards as a metatag in a batch process.	
4.0 Export assessment results where standards-alignment information is included and referenceable.	
5.0 Determine remediation, acceleration, and extension activities for groups of students using a recommendation engine.	
6.0 Set learning standards alignment as a required field.	

Technical Requirements

In addition to the functional requirements, the vendor's solution shall provide users with a wide variety of readily available and user-friendly interfaces to access the system, as well as provide an environment that allows for reliable and timely use of the content. In addition, the vendor's solution will integrate with third-party materials and software. Gaining conformance certification for IMS standards requires the vendor must maintain the highest levels of security in order to preserve and protect the confidentiality of data. The vendor is expected to employ leading edge and proven security solutions and protocols in order to fulfill this goal.