IMS Standards Update 2020: Technical Perspective

IMS Europe Technical Meeting
October 2020
IMS Standards Update 2020

The Covid-19 outbreak has placed great stresses and demands on every organization. IMS, with the significant support of our Members, has continued to make important progress on the development of standards for EdTech. More significantly, IMS has made great progress in providing new resources and tools to make it easier to work within the IMS EdTech Ecosystem. In this presentation the IMS Chief Architect will give an overview of the IMS Standards and provide an update on the latest technical activities. He will also provide important information on the new new resources and tools that are available to IMS Members. Finally, he will give insights into the technical work that IMS expects to complete in the next 12 months.

IMS Chief Architect
IMS Global
csmythe@imsglobal.org
Content

- IMS Specifications Context
- Technical Highlights 2019-2020
- Technical Objectives 2020-2021
- IMS ECOSYSTEM and IMS Europe
Short Biography

• Joined IMS in May 1999

• Responsible for the development of many IMS specifications inc.
  • Question & Test Interoperability (QTI)
  • Content Packaging
  • Accessible Portable Item Protocol (APIP)
  • OneRoster & Learning Information Services (LIS)
  • OpenVideo Metadata

• Currently IMS Chief Architect and responsible for:
  • How the specifications fit together to create the IMS ECOSYSTEM
  • Overseeing the technical details of the specifications
  • Supporting adoption of the specifications
Drivers for the Creation of a Specification

**Vendor Perspective** – Identification of a common interoperability pain-point in the market that is constraining the market

**Institutional Perspective** – Improving learning by resolving market failure or supplier monopoly

**IMS Perspective** – Building upon previous specification successes to support more learning workflows by enhancing and/or combining specifications
A wide range of specifications (29) published since 1999.

We have an extensive legacy responsibility.
Published Documentation

Overview

Implementation Guide

Conformance & Certification

Core Reading Material

Information Model

Technology Binding

Validation Artefacts

Reference Material

Conformance Test Systems

Reference Material

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Current Specification Activity

New Specification
- Comprehensive Learner Record
- Open Video Metadata
- Computer Adaptive Testing
- EDU-API
- Assessment Results Management

New Version
- OneRoster 1.2
- QTI 3.0
- Open Badges 2.1
- Thin CC 1.4

Profile
- Proctoring (LTI 1.3)
- SBAC (QTI 3.0)
- OneRoster 1.2 (Japanese)
- OneRoster 1.2 (Europe)

Evaluation
- CASE 1.1
- Caliper Metric Profiles
IMS 5-Minute Video Series

New series of 5-minute duration videos on IMS specifications (13 videos available NOW)

Available on the IMS Global channel on YouTube

Playlist: https://www.youtube.com/playlist?list=PLysC4Zd9-FmD773cUYratfgiwBtLGr7Jb
IMS 5-Minute Video Series (LTI)

LTI Advantage Overview
See IMS Global YouTube playlist: https://www.youtube.com/playlist?list=PLysC4Zd9-FmD773cUYratfgiwBtLGr7Jb

OneRoster Overview
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Digital Credentials & OpenBadges
See IMS Global YouTube playlist: https://www.youtube.com/playlist?list=PLysC4Zd9-FmD773cUYratfgiwBtLGr7Jb
## Specifications

**New Candidate Final specifications**
- CLR 1.0, Open Badges 2.1, Assessment Results Management 1.0, Common Cartridge 1.4

**New Public Candidate Final specifications**
- Proctoring 1.0, QTI 3.0

**Caliper 1.2 Final Release**

**EDU-API Charter established**
# IMS 5-Minute Video Series (Credentials)

<table>
<thead>
<tr>
<th>Video Series</th>
<th>See IMS Global YouTube playlist: <a href="https://www.youtube.com/playlist?list=PLysC4Zd9-FmD773cUYratfgiwBtLGr7Jb">Link</a></th>
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<td>Digital Credentials &amp; OpenBadges</td>
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Context for New Technical Work

- Establish IMS Europe Technical Working Group
  - OneRoster 1.2 Profile, LTI GDPR Best Practices, EDU-API

- Compatibility Check for OneRoster 1.1 & Common Cartridge/Thin Common Cartridge Implementations 1.2/1.3

- Preparation for Student Learning Data Model (SLDM) & Unified Model
CASE Network

https://www.imsglobal.org/casenetwork

Accuracy, Transparency, and Timeliness in Support of Aligned Instruction

Now more than ever, K-12 educators are seeking digital-first solutions. At IMS Global Learning Consortium, we know that student success starts with the academic standards that states and districts use to set goals and measure student progress.

Watch the video to learn more

The IMS community launched the CASE Network because we believe that all state academic standards and national learning standards should be in the CASE digital format and available for anyone to use for any reason—at no cost.

CASE Network is a breakthrough collaboration of leading states, districts, and edtech suppliers working to make the alignment of digital resources and edtech products dramatically easier for states and school districts at zero-cost.

When states and organizations publish their standards through the CASE Network, educators, students, and families can trust the educational technology tools and resources provided by districts and schools accurately support instruction.

Register for Free

Whether you’re an educator or edtech supplier, accessing the CASE Network is easy and doesn’t require a membership. Register for free to download the digital curriculum standards or access them by API.
**EDU-API**

**EduAPI** is a set of industry standard extensible APIs to support user provisioning, common source ID and administrative data exchange.

- **Data-in-Motion**
  - Card Access System
  - Provisioning
  - Grades

- **Data-at-Rest**
  - Usage Data
  - LTI-A Launch & Data Exchange
  - Digital Content
  - makerspace

**CALIPER Analytics Events**

- **Learning Record Warehouse**
  - Common Data Model
  - Analytics Processing

**EDU-API** is used for:

- **Common Source ID**
- **Provisioning**
- **Grades**
- **Card Access System**
- **Library**

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IMS Framework Documents

- Security Framework 1.1 – update to add new features
- Extensions Framework 1.0 – collation and documentation of use of extensions
- JSON API Framework 1.0 – new pattern to be applied to ALL IMS service specifications
IMS Ecosystem Accelerator Program

Guarantee Your Integrations Work

The Ecosystem Accelerator Program is an integration testing, issue resolution, and cloud-based compatibility service from IMS to guarantee your edtech product integrations work. Through this program, IMS provides digital ecosystem support tools for school districts, universities, and curriculum suppliers to accelerate digital on day one, data transparency, trust, product compatibility, and the cooperative evolution of open standards that make IMS a uniquely effective organization.

The Ecosystem Accelerator Program combines IMS Certification and the new IMS Compatibility Check service.

OneRoster Compatibility Check is Available Now

Integrate with confidence knowing that your OneRoster integrations work the first time and every time. Features of OneRoster Compatibility Check include:

**For Districts**

- **Characterization**: Identification of the unique capabilities of your OneRoster data
- **Verification**: Assurance that your data meets the requirements for integration with OneRoster certified products
- **Comparisons**: Access to reports on how your institution will integrate with multiple suppliers

**For Suppliers**

- **Characterization**: Identification of the unique capabilities of your software
- **Verification**: Assurance that your software meets the requirements of an IMS certification
- **Comparisons**: Access to reports on how your products will integrate with an educational institution

**For Districts and Suppliers**

- **Support**: Personal and expert assistance from the dedicated IMS team

Common Cartridge Compatibility Check is Launching Soon

- Ability to easily check that required curriculum standards are included within a cartridge and correctly align with the resources you provide.
- Verify that the metadata is supplied before providing to your customers. See what metadata your cartridge contains at every level.

To participate in the IMS Ecosystem Accelerator Program contact Lisa Mattson at lmmattson@imsglobal.org today.
IMS 5-Minute Video Series (OneRoster)

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App Vetting Rubric

Key links are:


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### IMS App Vetting Rubric

The following rubric may be used as a guide while vetting applications.

The rubric is still in draft format and only available to IMS members. Feedback on the rubric may be sent to appvetting@imsglobal.org

<table>
<thead>
<tr>
<th>Data Collected</th>
<th>Does Not Meet Expectations</th>
<th>Meets Expectations (Reservations)</th>
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IMS ECOSYSTEM

A view of the IMS ECOSYSTEM from the perspective of the various component systems and functionality.
Profile of an IMS Specification

Compatible version of an IMS specification tailored to a specific market / region / community
- IMS Europe lead on this for OneRoster 1.2, etc.

Through IMS, establish conformance and certification to the Profile
- IMS Europe support the creation of new Conformance Test System versions

Work with IMS to publish and promote the adoption of the Profile
- IMS Europe to establish the IMS Ecosystem in European countries
Questions & Comments?

Contact Colin Smythe (csmythe@imsglobal.org) and/or Markus Gylling (mgylling@imsglobal.org) and/or Nynke de Boer (ndeboer@imsglobal.org) and/or Lisa Mattson (lmattson@imsglobal.org)

Members can post to the IMS Forums at: https://www.imsglobal.org/forum

Access working documents and raise issues at: https://github.com/IMSGlobal