

Your Path to Trusted Student Privacy and Data Security

LTI Advantage is the foundation on which institutions build an innovative, flexible, and extensible digital ecosystem with industry-preferred security. Adopting this groundbreaking approach for integrating platforms, learning tools, and apps ensures the protection of your customer's sensitive student data and personally identifiable information (PII).

Learn more at imglobal.org/TakeAdvantage.

LTI Advantage is yet another opportunity to utilize agile technology to enhance learning in secure, timely and cost-effective ways.

Nowhere else can partners, educational institutions, and suppliers innovate and benefit together. This is so true for the secure integration of digital content made easy with IMS standards, especially LTI. This is why Penn State requires the adoption (certified) of LTI Advantage, with the enhanced security of LTI 1.3, by its partners. Yes...build once, use many is the right way to go.

—**Terry O'Heron**, Director of Operations, Teaching and Learning with Technology, Pennsylvania State University

LTI Advantage Security

- Tighter control of authorization roles ensure users access only the data permitted by their role
- Bi-directional communication encryption through HTTPS requirements protect against eavesdropping and tampering with platform and tool communications
- Data specific access permissions enable IT leaders at districts and institutions to be proactive in limiting the number of tools that can access PII
- Extensible and future-ready security model continues to protect data as your product and LTI Advantage evolve

LTI Advantage Leverages Industry Leading Security

LTI Advantage builds on the core **Learning Tools Interoperability**® (LTI) 1.3 standard, which requires a set of security patterns defined in the new **IMS Security Framework**. Adoption of LTI 1.3 promotes trusted, consistent, and compatible implementations for end-users and simplifies the use of other IMS standards applicable to your product.

The IMS Security Framework adopts the industry-standard protocol IETF OAuth 2.0 for authenticating services along with JSON Web Tokens (JWT) for secure message signing.



Features include:

- Authorization servers separated from resource servers to fit enterprise authorization schemes
- Additional verification of tool and platform authenticity to protect against on-path or in-transfer attacks
- A flexible and granular approach to access PII, such as defining application-specific authorization following best practices and regional and national legislative/regulatory requirements
- Multiple authorization grant types, each with its protocol flow that makes OAuth 2.0 adaptable for multiple use cases and client types
- A design that allows for easier upgrades to future security features like new access token types, grant types, and protocol parameters

LTI Advantage Certification is a Top Priority for Institutions

The strength of the market demand for increased security with OAuth 2.0/JWT is strong. **Higher education leaders** are indicating that LTI 1.3 and LTI Advantage are their minimum requirement for implementing products that exchange PII. K-12 districts are moving forward with LTI 1.3 adoption.

Only **LTI Advantage Certified** Products Promise

- Operational compliance with OAuth 2.0 and JWT message signing protocols
- Interoperability with other LTI Advantage certified products
- Accurate implementation of LTI Advantage prescribed standards and services

How IMS Certification Works

The IMS community-owned and governed certification process tests your product's code in action. Annually, each product must pass a series of situational and operational test conditions, including actual security operations, to become IMS Certified and get listed in the **IMS Product Directory** ([ims-cert.org](https://www.ims-cert.org)).

IMS Certification is benefit of your IMS membership. Give your customers and prospects confidence that integrations with your product will be secure and fully interoperable with reliable and consistent implementations, and minimize the roadblocks and extra costs typically seen with custom integrations.

Contact IMS to learn more about the **benefits of membership** and resources available.