



External Tool Integration Checklist

Last updated 8/25/2015

The following process should be carried out by the Learn@UW Madison Team after receiving a request to integrate external tools/software with one of the campus learning management systems. "External" means anything not hosted or provided by the University of Wisconsin-Madison or the LMS vendor. (Typically, this is a third-party vendor, such as a textbook publisher.)

This document does not pertain to internally developed UW-Madison LTI integrations.

<i>Product Name</i>	
<i>Initiation Date</i>	
<i>Product Description and Purpose</i>	
<i>Background Information (how initiated)</i>	
<i>Vendor Contact(s)</i>	
<i>Faculty/Departmental Contact(s)</i>	
<i>Desired Implementation Date</i>	



PHASE 1: TOOL EVALUATION

	<i>Step</i>	<i>Notes</i>	<i>Date Completed</i>
<input type="checkbox"/>	If not already completed, advise stakeholder to review the External LTI informational KB doc AND complete the request form to provide the necessary information about product and intended use. Request form is located at: http://goo.gl/forms/DGQmlwfY2q		
<input type="checkbox"/>	If applicable, inform stakeholder of next steps, including the projected rollout date if product passes all required evaluation criteria		
<input type="checkbox"/>	Schedule a meeting with vendor and include: <ul style="list-style-type: none"> • Learn@UW-Madison: service leader, LMS administrator, extensibility consultant • Office of Cybersecurity LMS liaison And request: <ul style="list-style-type: none"> • Product demo • Administrative documentation needed to perform the configuration • Test LTI configuration key, shared secret, and remote tool URL • All information required to complete the evaluation (see page 4) 		
<input type="checkbox"/>	Learn@UW Madison Service Lead informs the following people of the original request, upcoming Learn@UW Madison engagement with vendor, and the initiation of the review process. <ul style="list-style-type: none"> • AT Director • Learn@UW-Mad Exec Comm (UW CIO, DoIT COO, UW VP T&L, AT Director) • UW Associate and/or Chief Information Security Officer • DoIT COO procurement/policy liaison (currently Mike Hardiman) • Registrar 		
<input type="checkbox"/>	(For D2L integrations only) Complete the Learn@UW Utility Service Request form to inform Utility that the integration is being researched and tested		
<input type="checkbox"/>	Engage UW Office of Cybersecurity (via LMS Security Liaison) to begin review and testing of the integration		
<input type="checkbox"/>	Configure integration on test instance and test internally		
	Provide Cybersecurity LMS liaison scheduled system availability to run initial vulnerability assessment tools in Test/Dev		
	Office of Cybersecurity performs final validation or documents remediating controls in place		
<input type="checkbox"/>	Request copies of the following from vendor: <ul style="list-style-type: none"> • EULA • FERPA documentation 		



	<ul style="list-style-type: none"> Licensing agreements, if applicable Terms of use Accessibility artifacts, such as VPAT statement 		
<input type="checkbox"/>	Complete the External Tool Evaluation (**see page 5**)		
<input type="checkbox"/>	Identify any other campus partners to inform		
<input type="checkbox"/>	Receive final risk assessment letter containing approval from Office of Cybersecurity		
<input type="checkbox"/>	Make a final recommendation whether to move forward with the integration based on the evaluation results		
<input type="checkbox"/>	Learn@UW Madison Service Leader discusses recommendation with, and obtains approval from, Learn@UW-Mad Executive Committee		
<input type="checkbox"/>	Update stakeholder of evaluation results and whether the recommendation is moving forward to the Learn@UW-Mad Exec Committee for decision		
	If product passes evaluation, continue with PHASE 2. If not, summarize why product did not meet criteria.		

PHASE 2: TOOL IMPLEMENTATION

	Step	Notes	Date Completed
<input type="checkbox"/>	Perform end-user support planning: <ul style="list-style-type: none"> Create a single UW-Madison knowledgebase document pointing end users to the vendor's support resources (see some of our existing documents for examples) If vendor will not support, establish internal support procedures with DoIT Help Desk 		
<input type="checkbox"/>	Learn@UW Madison Service Leader engages DoIT COO procurement/policy staff to review the vendor legal/usage documents and draft new versions, if necessary. As part of this, connect the DoIT COO office and the vendor's legal/policy staff to broker changes and produce final agreements.		
<input type="checkbox"/>	Obtain approval from DoIT COO procurement/policy that agreements are finalized or sufficiently finalized in order to implement in production		
<input type="checkbox"/>	Request production LTI configuration key, shared secret, and remote tool URL from vendor		
<input type="checkbox"/>	Configure integration on production instance of LMS		
	Provide scheduled system availability for Cybersecurity Team to run vulnerability assessment tools in Production		
<input type="checkbox"/>	Office of Cybersecurity performs final validation		
	Plan and implement regularly scheduled Cybersecurity vulnerability scans of the service		
<input type="checkbox"/>	Inform stakeholder that integration is available and provide them with information about end-user documentation and support		
<input type="checkbox"/>	Add integration to the UW System LTI integrations matrix		



<input type="checkbox"/>	Add integration to list of UW-Madison integrated apps in the LTI knowledgebase document		
<input type="checkbox"/>	Archive final documents in official location, including: <ul style="list-style-type: none">• Copies of agreements with vendor; add to inventory list (include expiration date)• Letters from Office of Cybersecurity (include any key dates)		

PHASE 3: TOOL POST-IMPLEMENTATION REVIEW

	Step	Notes	Date Completed
<input type="checkbox"/>	Contact stakeholders/users for feedback on the integration and whether they are continuing to utilize it <ul style="list-style-type: none">• If there are “show-stopper” issues, the vendor may need to be contacted and ultimately the integration may need to be disconnected.		



External Tool Evaluation Criteria

The following criteria should be used to evaluate a third-party product being proposed for integration with the LMS. The Learn@UW Madison team will make recommendations whether or not to move forward with the integration based on the evaluation results.

The Learn@UW Madison team should periodically review these criteria to ensure alignment with the [CIO policies and guidelines](#) for external services.

Some decision criteria fall into the following categories and are indicated with an icon:

- Required [R] – Must meet minimum requirements (exceptions to be reviewed by Learn@UW-Madison Executive Committee comprised of UW CIO, UW VP for Teaching and Learning, DoIT COO, and UW Assoc. VP for Learning Technologies)
- High Priority [H] – Carry significant weight in the evaluation

DATA AND SECURITY

LTI enables delivery of data attributes from the tool consumer (LMS) to the third-party tool provider. As such, it is important to remember that the data being passed is transmitted to and commonly is stored on the third-party tool provider's servers. Data transmitted commonly includes student and employee data, which can be sensitive and may be subject to restrictions. LTI launch data is transmitted from the LMS to the tool provider via HTML form (delivered via HTTP over the internet). Although not required by the LTI specification, as a best-practice encryption (HTTPS) should be employed, because LTI attributes can include sensitive data. More about LTI: <http://developers.imsglobal.org>

Cat.	Criteria	Evaluation Results
	What version of LTI is used in the integration?	
	What data is extracted from the LMS and transmitted? User data, grades, etc.	
[R]	Is HTTPS used to transmit data securely to the third party? If not, how is the data being transmitted?	
	What data is being stored by the vendor? (Examples could include grades, user contact info, activity, etc.)	
	How are accounts “paired” with existing accounts that may already exist in the vendor’s system?	
[R]	How is data stored by the vendor being protected and secured? (FERPA is being complied with, data is being removed when no longer needed, etc.) <i>Potentially remove this in light of Office of Cybersecurity’s review, testing, and documentation process.</i>	
[R]	Is the vendor willing to add Terms of Service/EULA amendments to ensure practices acceptable to UW-Madison?	
	If this is a “deeper-than LTI” integration, what data is being transmitted and stored as part of the additional integration?	
	If this is a “deeper-than LTI” integration, does it require the use of a service account or custom role within the LMS?	
[H]	If this is a “deeper-than LTI” integration, are there any performance or stability risks to the LMS as part of the integration? What volume of database or web server activity will result from this product (transactions per hour, database queries per hour, etc.). If not quantifiable, is it high, medium, or low compared to general usage? Is it seasonal (higher certain times of the semester/year)?	
	Does this product conform to other IMS Global standards such as Caliper, QTI, APIP, etc.?	



ACCESSIBILITY

UW-Madison policies require full and equal access to applications. For policy information and evaluation tools, see <https://www.doit.wisc.edu/accessibility/>

	Criteria	Evaluation Results
[H]	Does the product comply with the University’s accessibility guidelines? (Examples: Adherence to Section 508; has been tested with screen readers tested; WCAG compliance; VPAT statement)	

USAGE AND PURPOSE

Analyze the number of faculty/students who will benefit from the integration.

	Criteria	Evaluation Results
	Is the primary purpose of the integration for instructional use, administrative use, or other uses?	
	Is similar functionality available elsewhere at UW-Madison, via other tools already in place?	
	How many faculty, students, and/or classes are likely to use the integration?	
	To what extent does the tool meet needs in multiple disciplines? What is its breadth of applicability?	
	Is there potential benefit or demand for integrating the tool with more than one campus LMS?	
	How many current UW-Madison faculty/staff currently use the tool being integrated?	
	Has the integration been successfully implemented by any other UW institutions?	

COSTS AND LICENSING

	Criteria	Evaluation Results
	Is there a cost or licensing requirement for the integration? (At a campus level? Course level? Individual student level?) Are there support-related costs?	
	Does a license already exist at UW-Madison, either centrally; at a department level; or at a course level? At a UW System level?	
	Does the product require any additional equipment or other software? Please specify.	

END-USER SUPPORT

	Criteria	Evaluation Results
[H]	What kind of end-user support will the vendor provide to users, including faculty configuration support and student support (in-person, website, phone, email, chat, etc.)	
	Are there any charges/fees related to support?	
	Are there different support level options at different costs?	
	If end-user support is provided, what are the hours of availability and holiday dates?	
[H]	Does the vendor have a knowledgebase, end-user documentation, or other self-	



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	help resources available for all users?	
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