



# IMS Enterprise Learning Systems and Applications Procurement (ELSAP)

## Request for Proposal: Learning Management System

### Public Draft – Version 1.0

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## Template Background and Instructions

### Introduction and History

Welcome to the ELSAP Learning Management System RFP template. In 2009, the IMS Global Learning Consortium, a non-profit collaboration among the world's leading educational technology suppliers, content providers, educational institutions, school districts, and government organizations dedicated to improving education and learning through the strategic application of technology, brought together a group of industry representatives from across the K-20+ educational community to form the Enterprise Learning Systems and Application Procurement (ELSAP) team. The goal of this team was to develop a Request for Proposal (RFP) template that would assist educational institutions who were procuring Learning Management System (LMS) technologies to both explore their LMS needs and to design an RFP solicitation notice that would adequately communicate their vision and requirements to the provider community so that the institutions could locate and engage the most suitable vendors who could meet their LMS needs.

### Template Components

The ELSAP LMS RFP template document is designed to be an educational institution's device for communicating its LMS vision and specific supporting requirements to the educational vendor industry as part of a formal RFP procurement effort. The template consists of three components.

The first component of the template, which is the section that you are reading right now, are the usage instructions. These instructions explain who developed the template and for what purpose, what the template is designed to do and how it should be used, where additional supporting resources are located that can be used in conjunction with this template, and then how institutions should utilize the template itself as part of their LMS system design and RFP procurement efforts.

The second component of the template, which begins in the following section, is the RFP template itself. This is the end user portion of the template, which is designed to be revised and completed by the educational institution with all of its organization's and LMS initiative's specific information, and then released by the institution to the vendor industry as a formal RFP solicitation notice in order to procure the detailed LMS technologies and services.

The third section of the template is the LMS RFP Template Resource Library, which is not a physical part of this template document, but rather an online resource library accessible from, and maintained by, the IMS Global Learning Consortium for the benefit of the K-20+ educational community. The LMS RFP Template Resource Library contains the most updated lists of software, hardware, service and add-on information available to the IMS Global Learning Consortium. This information is updated regularly by IMS and is intended to be used as resource data for educational institutions as they complete each section of the ELSAP LMS RFP template. The way this works in practice is that within each of template's sections below, sample line items are provided of the potential requirements, but these are only samples intended to help confirm the type of information intended to be entered by the institution in each of the template's respective sections. A link is then provided in the section that will allow institutions to browse to the online LMS RFP Template Resource Library where they can view the latest vendor options available for the

section, and then copy those options back into their revised template.

## Designing Your LMS System

Whether performed as a separate earlier effort or worked through while completing the template itself, every educational institution will be faced with a multitude of questions surrounding what is the institution's ultimate LMS vision, what are the goals required to facilitate that vision, and then finally what are the specific system requirements needed to implement each of those goals. Institutions have historically worked through these system design stages in many different ways, with each having slightly different combinations of user community, technical requirement, decision-maker, legal and financial factors, but all generally face some similar fundamental questions and issues.

The following are excerpts gathered from the ELSAP team's combined user experience working with thousands of educational institutions who have already gone through their own LMS system design and RFP procurement efforts. It is our hope that this information is deemed of some value to the education institutions utilizing this ELSAP LMS RFP template as they design their own LMS systems and develop their own RFPs.

- Define realistic, reachable, and if necessary, a phased implementation, set of goals.
- What is your pedagogical vision, and what functionality will your system need to obtain this vision?
- What hardware and software components will need to be acquired and implemented to fully implement your vision?
- Determine what are the likely customizations needed to tailor a vendor's LMS system to meet your institution's specific needs, and then calculate the costs necessary to perform such customizations and to subsequently administrate the new system.
- Consider the impact on your Information Technology staff and resources, not only during initial implementation, but more importantly, afterwards when your new LMS system needs administrated.
- Calculate what will be the true and full costs of both implementation and LMS system administration.
- If you have existing content, determine the difficulty in migrating that existing content from your current system into your new system, and/or the difficulty in migrating that content in the future out of your new LMS system.
- Remember that a successful adoption starts with the input, acceptance, support, and buy-in of your primary users, often your educators and business administrators.
- Most LMS systems offer one of three types of hosting: self hosting, where the institution itself owns the hardware and software and is fully responsible for all system functionality; vendor hosting, where the institution itself owns the hardware and software, but the vendor is responsible for ensuring the system remains functional; and remote hosting, where the institution owns the software, but the vendor owns the hardware and is responsible for ensuring the system remains functional.

## Completing the Template

The ELSAP LMS RFP template document that begins on the following pages consists of multiple sections covering the typical features and functionality found in most LMS systems; all of which should be reviewed and revised as needed by the educational institutions intending to release the RFP. **Specific information detailing an institution's desired LMS system needs to be added to this template by the institution in order for this template to be complete and accurate.** Institutions should take care to be very specific and detailed in what they require from the vendor, and draw a clear delineation between those requirements that are deemed mandatory from those that are considered optional, as well as clearly stating any supporting information that will be used to determine the basic compliance of a vendor's responding proposal, and whether optional, alternate, or multiple proposed solutions are required, desired, allowable, or will not be evaluated.

It is critical to note for each feature/functionality included in your final RFP whether it is Required, Optional or Not Applicable for your particular institution. It will also be very helpful to your vendors to state whether each feature/functionality is needed for the Student, Instructor/Course Designer and/or System Administrator. These notations will identify what parts of your RFP the vendor needs to complete for your institution. Please delete any feature that is Not Applicable to your situation and institution.

The following page that begins with LMS Technical Requirements is the start of the actual ELSAP LMS RFP template. The instructions on that page are intended to be delivered as part of the final RFP to the vendors bidding on the procurement contract. Institutions should first review these instructions and revise them as they deem appropriate to bring them in line with their organization's program preferences and contractual and legal parameters.

Once the instructions page is finalized, institutions should go through each of the tabled sections, review each section's definitions with all the appropriate stakeholders to gain a consensus of understanding, review the institution's needs and wants on the sections, and then follow the provided link to the IMS website to view the LMS RFP Template Resource Library. Once all the desired options are identified for each section from the Resource Library, those items can be copied back into the LMS RFP template to complete the sections.

## ELSAP Project

<b>Title</b>	<b>IMS Enterprise Learning Systems and Applications Procurement (ELSAP) Request for Proposal: Learning Management System</b>
<b>Co-Lead(s)</b>	Tina Piper (Florida Virtual School); Holly Henry Cooper (American Public University System)
<b>IMS GLC Lead</b>	Lisa Mattson
<b>Version</b>	1.0
<b>Version Date</b>	16 June 2011
<b>Status</b>	Public Draft
<b>Summary</b>	The goal of this team was to develop a Request for Proposal (RFP) template that would assist educational institutions who are procuring Learning Management System (LMS) technologies - to both explore their LMS needs and to design an RFP solicitation notice that would adequately communicate their vision and requirements to the provider community so that the institutions could locate and engage the most suitable vendors who could meet their LMS needs.
<b>Revision Information</b>	This Public Draft version is for evaluation and review by the IMS community.
<b>Purpose</b>	The ELSAP template was developed to be used in whole or in part, depending on the institution-specific procurement needs and requirements.
<b>Document Location</b>	<a href="http://www.imsglobal.org/">http://www.imsglobal.org/</a>

## ELSAP Project Group Participants

The following ELSAP project group members and their respective organizations contributed to the development of the ELSAP LMS RFP.

<b>Name</b>	<b>Organization</b>
Tina Piper, Ph.D.	Florida Virtual School
Holly Henry Cooper	American Public University
Charlene Douglas	Desire2Learn, Incorporated
Jeff Larson, Ph.D.	Compass Knowledge Group
Louise Pendleton	Levelland Independent School District
Daemon Price	Blackboard

## ELSAP RFP LMS Template Begins on Next Page

## ELSAP Template: LMS

### Technical Requirements

#### Technical Proposal Response Requirements

Responses shall provide clear explanations of each proposed product or service, including concise descriptions of specific features and their implementations. For each supported feature, vendors should identify how to accomplish/perform the task.

While the RFP asks yes/no questions regarding the features, capabilities and limitations of a proposed product or service, simple responses will not give evaluators full appreciation for the functionality, usability, and ease with which these features are implemented. Vendor responses must include fully developed responses that incorporate an appropriate level of detail.

Special consideration will be given to programs that interoperate with other systems including registration, admissions, library system, billing, standard interfaces to databases, learning object repository hooks and integration, and third party value tools.

Answer, in detail, each question regarding tools and features that the proposed solution offers for learner, instructor, course designer and system administrator as appropriate.

Required, Optional, or Not Applicable: Required features are those that \_\_\_\_\_ has deemed mandatory. The vendor has to provide these features in order to meet the basic specifications for this RFP and, if not met, the vendor will not progress to the next evaluation phase. Optional features are those that are nice to have but not required. Not Applicable indicates features that are not pertinent to this RFP. If a feature is marked Not Applicable, the vendor does not need to respond to that item.

Yes: The feature is fully supported or implemented in the basic product and is available at no added cost.

No: The proposed solution does not support this feature.

Optional: The feature is available as an option from the vendor and is not part of the basic product and may affect the member's final cost.

Third Party Support: The feature is available as a third-party extension to the product and may affect the member's final cost.

Future Functionality: The feature is not available in the current version of the product but will be available in future versions.

Institutional Information		Vendor Responses							
	Required, Optional or Not Applicable	Yes	No	Optional (not part of Core Product)	3 <sup>rd</sup> Party	Available for Student	Available for Instructor/Course Designer	Available for System Admin	Future Functionality
<b>1.0 Communication Features</b>									
Calendars									
Community groups									
Instant messaging									
Knowledge capture									
Learner forums/blogs									
Mentor matching									
Momentary absence feature									
Real-time Chat									
Threaded discussion groups									
Parent or mentor account capabilities									

Communication between teachers/student (define methods available)									
Communication between parent/teacher (define methods available)									
Communication between student/student and teacher/teacher (define methods available)									
Ability to filter and/or monitor									
Email – internal and/or external									
Email – before, during, after duration of course									
Email between instructors, students, mentors, experts									
POP/IMAP, campus email integration									
SMTP, MIME, and SMS									
<b>2.0 Group Work</b>									
Groupware									
Decision support software									

Blogs									
Wikis									
Groove									
Multi-user virtual environments (MUVE)									
Twitter									
Facebook									
Other social media									
Collaborative group spaces									
Student community-building tools									
Ability to filter and/or monitor									
<b>3.0 Learner Feedback Functions</b>									
Applause tools									
Course evaluation tools for Learners									
Feedback during presentations									

Feedback after presentations									
Hand-raising									
Instant audience polls									
Poll reporting									
Speed up/slow down indicators									
Recording									
<b>4.0 Notes</b>									
Private/personal on-line note-taking									
Publishing private/personal notes									
Instructor Override									
<b>5.0 Offline Capabilities</b>									
Work offline/synchronize									
<b>6.0 Organization</b>									
Bookmarks									

Checklists									
Plan or progress review									
Searching within a course									
Study guides									
<b>7.0 Self-Help Capabilities</b>									
Learner self-registration									
Microphone/speaker self-testing									
Searchable course catalog									
Self-Assessment									
User self-help function									
User self-orientation									
<b>8.0 User-Generated Content</b>									
Adding user-generated content									
Browser-based content generation									

Built-in WYSIWYG editor									
Hyperlink support for user generated content									
Student portfolios									
Templates for user generated content									
<b>9.0 User-Workspace Customization</b>									
Configurable browser toolbars and options									
Configurable functions and process activities									
Configurable menus									
Configurable user screens									
Configuration save as user default screen									
One-time only screen configuration									
Personalized curriculum									
Drag and place menus per user									
User specific archival course list									

<b>10.0 Video/Audio Services</b>									
Audio/video capture									
Multiple simultaneous user audio streams									
Streaming video									
Streaming audio									
Telephone conferencing									
VOIP support									
Web Conferencing (i.e., Elluminate, Adobe Connect, WebEx)									
<b>11.0 Whiteboard</b>									
Application sharing									
Content capture									
File sharing									
Text and drawing tools									

Chat, audio/video									
<b>12.0 Student Evaluation</b>									
Automated testing and scoring									
Online Grading Tools									
Prescriptive content for students with identified subject matter weaknesses									
Student Tracking									
Diagnostic tools for assessing student content									
Export of evaluation data									
<b>13.0 Course Management</b>									
Scheduling instructors									
Scheduling facilities									
Scheduling equipment									
Resource conflict resolution									

Manage waitlists									
Calendar									
Entry screen for instructors to enter grades and comments									
Learner evaluation of courses									
Multiple time zones, currencies, tax rates									
Multi-site support									
<b>14.0 Presentation/Delivery Support</b>									
Importing content (from 3 <sup>rd</sup> party applications, SCORM content, Publisher content)									
Media file support									
Import capabilities for test bank software (e.g., ExamView, Respondus)									
Conditional information release with instructor-definable release parameters									
<b>15.0 Polling and Testing</b>									
Audience polling or testing during presentation									

Reporting results of polling									
Graphing the results of polling									
<b>16.0 Instructor Feedback</b>									
Instant learner feedback									
Content rating									
<b>17.0 Instructor Support</b>									
Instructor Help Desk									
State Standards Alignment									
Rubric creation tools									
Survey creation tools									
Instructor Community Building									
Automatic email progress reporting									
Mailing list capabilities									
Online Gradebook									

Announcements									
Instructor FAQ									
Attendance									
Online grade book integrates with enterprise software, allowing grades to transfer automatically									
Notification of new discussion entries, quizzes to be graded, Dropbox entries									
<b>18.0 Interoperability with Custom eLearning Courseware</b>									
Adobe Acrobat PDF files									
Authorware									
DazzlerMax									
Director									
Dreamweaver									
Flash									

Java									
Knowledge Presenter									
Lectora									
PowerPoint									
Questionmark									
ReadyGo									
Toolbook									
Trainersoft/OutStart Trainer									
Word									
<b>19.0 Output Formats</b>									
CD-ROM									
HTML									
Mobile/Wireless									
PowerPoint									

Print									
XML									
PDF									
Zip									
IMS Common Cartridge									
<b>20.0 Content Creation and Editing</b>									
Ability to create and manage templates									
Integration with Learning Object Repository)									
Authoring is fully web browser-based									
Automatic course menu/map creation									
Bookmarking									
Can launch third party applications									
Choice of navigation buttons and scenarios									
Content editor provides standard word processing									

FAQ creation									
Glossary/Dictionary creation									
Import content from PowerPoint									
Import content from Word									
In-line CSS rendering									
Insert hyperlinks									
Manages and updates links									
Multiple languages									
Preview Mode									
Templates provided									
Version control									
Wizards									
Workflow to manage content development									
WYSIWYG editor									

API Support									
<b>21.0 Third Party Applications or User Plug-ins Required</b>									
Flash									
ActiveX									
Java									
Authorware									
Shockwave									
Adobe Acrobat Reader									
Real Player									
QuickTime									
No plug-ins required									
IMS Basic LTI									
Other									
<b>22.0 Rich Media</b>									

Animation									
Audio									
Editing tools for graphics, audio, video, animation									
Flash									
Graphics formats									
Rich text									
Video									
<b>23.0 Interactivity</b>									
Adaptive Learning									
Computer screen simulations									
Hot spots									
Pre-tests to build course curriculum									
Role-play simulations									
<b>24.0 Assessment/Evaluation Tools</b>									

Flash support									
Instructor notification									
Java support									
Reports learner performance									
Stores learner performance									
Survey creation tool									
IMS QTI support									
Standards/competencies correlation tools (allow an instructor to align course materials with standards/competencies and track which users are meeting those standards)									
<b>25.0 Test Formats</b>									
Assessment questions drawn from a pool									
Attempt limits									

Drag-and-Drop									
Essay									
Fill-in-the-blank									
Hot spot									
Likert scale									
Matching									
Multiple choice									
Numerical answer									
Randomized distractors									
Randomized question presentation									
Ranking									
Short-answer									
Supports multiple correct responses									
Timed evaluations									

True/False									
Import from and export to test banks/libraries									
Share with other instructors, departments, organizations									
Include ability for extra credit, honors, proctored exams									
<b>26.0 Language Support</b>									
Arabic									
Chinese (traditional)									
Chinese (simplified)									
Czech									
Danish									
Dutch									
English (American and Great Britain)									
Finnish									
French									

German									
Greek									
Hebrew									
Hungarian									
Italian									
Japanese									
Korean									
Norwegian									
Polish									
Portuguese									
Russian									
Spanish									
Swedish									
Thai									

<b>27.0 Learner Feedback on Assessments</b>									
Essay evaluation									
Hints									
Immediate feedback with corrections									
Immediate feedback with no corrections									
Multiple attempts									
No feedback									
Performance summary									
Pre-selected student feedback									
<b>28.0 Levels of Access, Permissions, Number Allowed</b>									
Administrator									
Course Designer									
Instructor									
Student									

Teaching or Graduate Assistants									
Multiple levels of customized instructor and administrative permissions									
<b>29.0 Reporting</b>									
Custom report creation on all data									
Custom report creation on selected data									
Report templates									
Import report data									
Export report data									
Data warehouse									
Business Intelligence/Academic Analytics capabilities									
<b>30.0 Administration</b>									
Administration client									
Browser-based remote administration									

Email notifications for users									
Multiple concurrent courses for users									
Multiple time zone support									
Multi-site support									
Scheduling instructors for synchronous events									
User profiles									

## Basic System Administration and Standards Support

Answer each question regarding tools and features that the proposed solution offers for the system administrator. Attach a technical specification sheet for the proposed solution.

**Required, Optional, or Not Applicable:** Required features are those that \_\_\_\_\_ has deemed mandatory. The vendor has to provide these features in order to meet the basic specifications for this RFP and, if not met, the vendor will not progress to the next evaluation phase. Optional features are those that are nice to have but not required. Not Applicable indicates features that are not pertinent to this RFP. If a feature is marked Not Applicable, the vendor does not need to respond to that item.

**Yes:** The feature is fully supported or implemented in the basic product and is available at no added cost.

**No:** The proposed solution does not support this feature.

**Optional:** The feature is available as an option from the vendor and is not part of the basic product and may affect the member's final cost.

**Third Party Support:** The feature is available as a third-party extension to the product and may affect the member's final cost.

**Future Functionality:** The feature is not available in the current version of the product but will be available in future versions.

Institutional Information		Vendor Response				
	Required, Optional or Not Applicable	Yes	No	Optional (not part of Core Product)	3 <sup>rd</sup> Party	Future Functionality
<b>Client</b>						
Apple Macintosh OS X (to 10.4.x)						
Apple Macintosh OS X (10.5 – up)						
BNS/Linux (such as Debian, SUSE, or Red Hat)						
Java Virtual Machine (JVM)						
Unix						
Microsoft Windows (2000, XP, Vista)						
<b>Server Platform</b>						

AIX						
Apple Macintosh OSX						
BSD (such as Free BSD, NetBSD, or Open BSD)						
Dynix						
GNU/Linux (such as Debian, SUSE, or Red Hat)						
HP-UX						
IBM OS/400						
IBM OS/390						
Novell Netware						
Sun Solaris						
Unix						
Windows 2000/2003						
Windows XP Professional						
Windows Vista						
<b>Web Application Server</b>						
Apache Tomcat						
BEA WebLogic						
IBM WebSphere						
JBoss						
Microsoft IIS						
Oracle Application Server						

Sun One						
Zope						
<b>Database</b>						
IBM DB2						
Microsoft Access						
Microsoft FoxPro						
MySQL						
Oracle						
PostgreSQL						
Sybase						
Microsoft SQL Server						
Other						
<b>Application Architecture</b>						
Adobe AIR						
C++						
ColdFusion						
J2EE						
J2SE						
Microsoft ASP						
Microsoft .NET						
Perl						

PHP						
Python						
<b>Web Browser</b>						
Chrome						
Konqueror						
Microsoft Internet Explorer						
Mozilla/Firefox						
Opera						
Safari						
Netscape						
<b>Portal</b>						
BEA						
CA CleverPath						
Hummingbird						
IBM						
Microsoft SharePoint						
Oracle						
PeopleSoft						
Plumtree						
mySAP						
Sun						

Vignette						
Timecruiser						
Other/Custom						
<b>Web Services</b>						
Support key web service standards (SOAP, UDDI, WSDL, etc)						
Aggregate data from multiple web services						
Renders external web services into standard HTML, PDF, spreadsheet, or XML						
Captures data visualization via external						
<b>LDAP Support</b>						
Authenticates users or authors from third party LDAP directories						
Novell Directory						
Windows Active Directory						
Other LDAP directories						
<b>Integration with Other Systems</b>						
Corporate or Enterprise portals (e.g., Luminis)						
CRM						
ERP						
Third-party LMS/LCMS						
SIS (PeopleSoft, SunGard, Datatel, Legacy Systems, etc.)						
Library Systems						

HR/Financial Systems						
API (Application Program Interfaces) Availability						
Proprietary/Custom/Legacy Systems						
Third-party XML authoring products can integrate natively with LMS						
Third-party taxonomy management tools can integrate natively with LMS						

- What methods and/or tools are available to extend the system? For example, can a web application be built that calls on the LMS to perform certain functions?
- What functions can be performed via a web API? (e.g., creating user accounts, enrollment drop and adds, grades export, etc.)
- Can single sign-on from other campus systems (portals, legacy systems) be implemented?

### Scalability

- Must be able to support \_\_\_\_\_'s current enrollment and concurrent logins and be scalable to meet anticipated growth. (Current enrollment in online courses exceeds \_\_\_\_\_ students per Fall and Spring semesters with expected growth of approximately \_\_\_\_\_% per year. Concurrent logins exceeds \_\_\_\_\_ per Fall and Spring semesters with expected growth of approximately \_\_\_\_\_% per year).
- What are the top issues in the last 12 months, related to stability and reliability that have been escalated for resolution by clients in the LMS you are offering?
- As LMS usage grows both in breadth and depth, how is the system expandable such that the staffing requirements and system uptime are not affected?

### Accessibility

Functional accessibility can be achieved through the following:

1. Adhering to global technical standards, such as W3C WCAG 2, that allow people with disabilities to access information online. All pages must be perceivable and understandable with assistive technologies such as screen readers, text magnifiers and speech to text solutions. All components, such as inline editors and video players must be operable with assistive technologies and through only a keyboard.
2. Supporting users in the selection and production of accessible content. This includes complying with IMS ACCMD guidelines and W3C ATAG guidelines.
3. Ensuring that components are easy to use for people with disabilities. This includes including people with disabilities in product evaluations and using W3C ARIA markup where appropriate.

4. These provisions apply to all aspects of a solution, including support materials.

It is also important that solutions allow for individualized education plans. This includes allowing for reasonable adjustments to learning activities and assessments. This includes compliance to IMS ACCLIP guidelines.

- Include a W3C WCAG 2 conformance claim. Format this claim as recommended within WCAG 2.
- [If in the US] Include a Voluntary Product Accessibility Template.
- How does your proposed solution conform to IMS ACCMD?
- How do content instances within your proposed solution conform to IMS ACCMD?
- Include a W3C ATAG conformance claim. Format this claim as recommended within ATAG.
- How is your proposed solution easy to use for persons with disabilities? Include details, including dates, number of individuals and technologies used for all usability testing with people with disabilities.
- How does your proposed solution leverage WAI-ARIA markup and/or what are your future plans to use this markup?
- How does your proposed solution allow for individualized learning plans?
- How does your proposed solution conform to IMS ACCLIP?
  - If you manage ACCLIP information, have you implemented all ACCLIP structures?
  - If you use some or all ACCLIP preferences, which sets of technology preferences do you fully conform to: display, control and/or content?

### Testing and Logging

- Describe the Quality Assurance processes the software is run through to ensure the least amount of bugs and issues are found in the product.
- Describe your products ability to log:
  - Date and time of the event
  - Relevant user(s) of the process
  - Event description (i.e., content changes by user)
  - Successful and failed attempts to logon and logoff
  - Changes to system administration and user accounts
  - Failed attempts to access data and system resources
  - Attempts to use special privileges
  - Use of special privileges
  - Changes to security settings
  - Service failure and restarts
  - System start up and shutdown
  - Source of request
- The Vendor is to provide a solution that logs the following minimum information in a fault log:
  - Date and time of the fault
  - Fault description

- System identification
- Relevant system components that are found in fault
- Relevant users of the process
- Steps to remedy fault
- Success or failure of the remedy
- Event source
- Name of personnel involved in problem resolution
- Network source

## Standards

Instructional standards compliance concerns how well a product conforms to standards for sharing instructional materials with other online learning systems and other factors that may affect the decision of whether to switch from one product to another. Instructional standards compliance involves trying to make it possible for applications from different product producers to work well together. There are presently several proposed standards but the prominent are the specification developed by the IMS Global Learning Consortium that define the technical specifications for interoperability of applications and services in distributed learning and support. The IMS specifications can be found at [www.imsglobal.org](http://www.imsglobal.org). Conformance to IMS Standards is available and can be checked online. SCORM is a reference development which uses some training industry standards and some specifications from IMS, AICC, IEEE, and ARIADNE ([www.adlnet.org](http://www.adlnet.org)). In terms of compliance there appear to be four levels: awareness of the standards, claimed partial compliance, self-tested compliance, and official certification. Other migration considerations are situations that would make switching to another application more complicated, such as proprietary data formats for content, which make it difficult to import course content into another application. To the extent that student data is maintained in the system there can be separate complications in migrating non-course information to other versions or platforms.

- Describe how your product conforms to these and other industry and instructional standards.
- Provide details of the key standards your solution is compliant with and indicate where your organization has had or has involvement with development of relevant industry standards. This should include:
  - Learning content packaging standards
  - Learning assembly and design standards
  - Learning management standards
  - Search standards
  - Data standards
  - Internet standards
  - Identify management standards
  - Security standards

## Warranties

- Does the product you are offering have a warranty? Please provide details of the conditions of the warranty.

- Does the warranty allow for differing levels of service? Please describe these levels of service
- Does the product you are offering contain a technical guarantee? Please provide the details of the conditions of the technical guarantee.

### **Company Roadmap**

Provide a graphic as well as a narrative description of the Product Roadmap providing a “big picture” or where the design and development this product is currently going in the next five (5) years. If you have multiple products available, provide a graphic and narrative for EACH product separately.

## Interoperability

For each IMS specification identified below, vendors should provide evidence of conformance with respective specifications. Vendor responses must include examples and an appropriate level of detail, including IMS compliance testing outcomes and evidence that their product is recognized by IMS as compliant to relevant specifications below. For example, your IMS compliant product should be referenced here: <http://www.imsglobal.org/cc/statuschart.html>. This information is being requested so that \_\_\_\_\_ can adequately determine whether the LMS proposed is in compliance with the IMS specification.

**[NOTE TO EDUCATIONAL INSTITUTION USING THIS RFP TEMPLATE: As this is a RFP template to be used for K-20+ educational institutions, specific information required for your particular institution needs to be added by your institution. Please be very specific and detailed in what you require from the vendor/application. These IMS standards are provided in the technical section of this RFP so that your institution can identify relevant standards and determine which specifications you deem appropriate for your RFP. It is not the intention of this template to mandate or standardize the request for specific IMS technical standards in the RFP process.]**

<b>IMS GLC Common Cartridge Interoperability Specification</b>
<p><b>Functional Description:</b> This specification supports the learning enterprise by providing a standard packaging format for the reliable exchange of learning materials, including an assumed delivery sequence for offering these to the learner.</p>
<p><b>Benefits and Value to School, District or Institution:</b></p> <p>First, ease of content distribution and reuse. Content authored in a Common Cartridge compliant application will be stored as a Common Cartridge, a package of files along with a manifest. This package can be imported into any other Common Cartridge compliant tool or learning platform. The content can include web files, external links and discussion topics, and most importantly assessments. Any of this content should be faithfully and natively represented in any importing product.</p> <p>Second, ease of content distribution migration. Content in a learning platform ( LMS ) that supports exporting in Common Cartridge can be used in another Common Cartridge compliant platform. This serves the case where an institution needs to migrate from one LMS to another, preserving investments on course content, as well as in a multi-LMS campus where content might originate in one platform and then need to be shared in another.</p>
<p><b>Key Conformance Criteria:</b></p>

The IMS Common Cartridge Alliance offers a compliance program. This is a marketing and technical program for members. One element of the program is an online cartridge validation tool. This tool can import a cartridge and validate its contents against all the conformance rules.

The validator is available at <http://validator.msglobal.org>

Information about what conformance involves is available here:

<http://www.msglobal.org/developers/alliance/conformance.cfm>

The latest information on who is compliant with Common Cartridge is here:

<http://www.msglobal.org/cc/statuschart.html>

#### Additional Common Cartridge Information:

Public link <http://www.msglobal.org/commoncartridge.html>

Digital Learning Connection <http://www.msglobal.org/dlc.html>

Frequently Asked Questions <http://www.msglobal.org/cc/ccfaq.html>

Digital Learning Services <http://www.msglobal.org/digitallearningservices.html>

Specification <http://www.msglobal.org/cc/index.html>

## IMS GLC Basic Learning Tools Interoperability (BLTI) Specification

**Functional Description:** IMS Basic Learning Tools Interoperability (BLTI) v1.0 provides a single framework or standard way of integrating rich learning applications or premium content with platforms like Learning Management Systems, portals, or other systems from which applications can be launched—called Tool Consumers. The basic use case is to allow the seamless and secure integration of web-based, externally hosted applications and content, or Tools (from simple communication applications like chat, to domain-specific learning environments for complex subjects like math or science) to platforms that present them to users. In other words, if you have an interactive assessment application or virtual chemistry lab, it can be securely connected to learning/course management systems, portals, etc. in standard ways without having to develop and maintain custom integrations.

#### **Benefits and Value to School, District or Institution:**

- Increases options for students and instructors when selecting course/curriculum-specific learning applications
- Reduces development costs for Tool Providers to develop custom integrations with many LMSs
- Reduces support costs for universities, LMS vendors and Tool Providers coming from a more clearly defined interface between the LMS and the Tool
- Protect the LMSs from poorly written proprietary tool integrations
- Enables software as a service (SaaS) for web-based on-demand applications and

services, a growing trend on campus

- Enables mash-ups of applications within the learning system or portal, creating an enhanced learning environment to support personalized learning styles and accessibility needs
- Allows common tools to be used across multiple LMS systems
- Ultimately spurs the kind of innovation that improves education

**Key Conformance Criteria:**

The IMS Alliance offers a compliance program for Basic LTI. This includes a set of test harnesses to help developers test their tool and LMS implementations against known implementations. These test harnesses are available online as well as released open source under the Apache 2 license to serve as sample code for developers.

In order to achieve a conformance mark, Tool and LMS vendors must demonstrate their software as working properly against a conformance test suite that runs the software through about 30 different tests. Vendors must re-certify their software for each new release. IMS also releases the source code to the certification tests under an Apache 2 license if vendors want to have their own instance of the certification software to allow more regular testing.

The test harnesses for BLTI At available at: <http://www.msglobal.org/developers/BLTI/>

Information about what conformance involves is available here:

<http://www.msglobal.org/developers/alliance/conformance.cfm>

The latest information on who is compliant with Basic LTI is here:

<http://www.msglobal.org/cc/statuschart.html>

NOTE: the CC and LTI is the same alliance.

Additional BLTI Information:

Public link <http://www.msglobal.org/developers/BLTI/>

Specification: <http://www.msglobal.org/lti/index.html>

Alliance <http://www.msglobal.org/cc/alliance.html>

Public forum: <http://www.msglobal.org/community/forum/index.cfm?forumid=11>

## Services Requirements

Responses shall provide clear explanations of each proposed product or service, including concise descriptions of specific features and services and their implementations.

While the RFP may ask yes/no questions regarding the features, capabilities and limitations of a proposed service, simple responses will not give evaluators full appreciation for the functionality, usability, and ease with which these services are implemented. Vendor responses must include fully developed responses that incorporate an appropriate level of detail.

Special consideration will be given to programs that interoperate with other systems including registration, admissions, library system, billing, standard interfaces to SQL databases, learning object repository hooks and integration, and third party value tools.

## Startup Services:

### Implementation including hardware sizing, installation and configuration

- Provide details of the methodology you propose to use to conduct the projects. The methodology must be in the form of a narrative that describes all tasks and stages required to complete the project. The methodology also needs to be presented as a detailed project plan. The project plan must provide a deployment approach that will result in the solution being successfully rolled out by \_\_\_\_\_ and include:
  - Milestones (including payment milestones), being completion of key stages or components within the project
  - A listing of key staff involved with each stage or component
  - A listing of sub-contractors/consultants involved with each stage or component
  - Details of how you intend to provide the deliverables for each stage or component and the contents of each deliverable
  - An indicative timetable to complete the project
  - A risk management plan
  - A dependency management plan
  - An issue and problem management plan
  - A change management plan
  - A project reporting plan
  - A data conversion strategy
  - An integration/interface strategy
  - A knowledge transfer strategy
  - A disaster recovery strategy as well as a business continuity strategy
  - A capacity planning strategy
- Provide details of the way in which you propose to structure your project delivery team. This should include details of:

- Governance and Management structures
  - Team and sub-team structures
  - Responsibilities of each team
  - Interactions with Stakeholder and Subject Matter Expert groups.
- Provide details of the way in which you propose to undertake testing of the solution during implementation to ensure that it is fit-for-purpose and meets client needs and expectations. This should include description of the approach to:
  - Functional testing
  - System testing
  - Security and penetration testing
  - Regression testing (including automated scripts)
  - Stress/performance testing
  - Recovery testing
  - Conformance testing
  - Compatibility testing
  - Integration testing
  - User Authentication testing
  - Production verification testing
  - Beta testing
- Describe the minimum required hardware configuration required to support the proposed solution. The description should include the processor, installed memory, required hard disk space and any other components required to make the proposed solution perform as intended.
- Describe the optimum hardware configuration required to support the proposed solution.

## Migration Services:

### Conversion (from other LMS)

- List and describe all course migration tools/utilities available to help \_\_\_\_\_ migrate content, users and setting from \_\_\_\_\_ to your LMS.
- Is there an ability to batch migrate courses? Please explain.
- Explain whether your company can convert existing \_\_\_\_\_ courses into a format that successfully transfers content into your LMS. This will need to be demonstrated during the onsite presentation.
- List all known issues with migrating from \_\_\_\_\_ to this LMS.

## Upgrade and Maintenance Support:

- Describe the process for installing a new release. How long does it take an implementation of the proposed size to prepare for and install a new release, to test the new release, and to put it

into production? How is the install affected by any site modifications? How are site modifications affected by installing a new release?

- What is the frequency of new releases? Provide a schedule of new releases for the past 3 years. For each release, include the date the respondent first indicated the release would be available, the date the release was actually made available to customers, and the percent of the customers currently running on each release.
- Describe the process for installing patches. How long does it take an implementation of our size to prepare for and install a patch, to test the new patch, and to put it into production? How is the patch affected by customized programming at the user site? How is customized programming affected by installing a new release?
- How are patches, upgrades and fixes for the software distributed? Are these included in the licensing cost or are they provided at an additional cost?
- Does the proposed solution include an automatic update feature?
- For what period of time does the respondent support older versions of the system?
- How do you provide term archiving and purging? What technology do you use to provide term archives if they wish a copy be kept locally?
- Explain how you provide your clients with valuable reports or read access to monitor significant events for purposes of reviewing performance at the application and database levels. Provide your standard process and length of time for retaining server logs and other reports that provide diagnostic details on user activities and issues.

### Vendor Hosted Solutions:

- Vendors are required to include a sample copy of their standard SLA for hosted solutions as part of the RFP response. If the standard SLA applies to more than one Vendor service and has already been provided, a duplicate copy is not required.
- Vendor should demonstrate their experience and qualification to provide hosting services. Include a summary of the number and types of clients currently served.
- Does Vendor provide services on vendor servers or must client provide servers?
- Does the Vendor offer a dedicated hosting solution, or is a hosted solution shared among several distinct users?
- Are software upgrades made at no additional charge to clients? If not, what is the cost to accept an upgrade?
- Are there any application licensing costs or issues that a client would be held responsible for?
- Do the Vendor's technical, programming, and support staff qualify as experts in the applications offered, or is the expertise obtained from an external source?
- Include any product or manufacturer certifications the Vendor's staff may possess that are relevant to the hosted service offering.
- Will Vendor integrate the applications provided with other software that the Vendor does not manage (i.e., client's student information system and associated applications). Describe how

this integration is done.

- Can Vendor provide servers for:
  - Development and Testing (describe)
  - Staging (Describe)
  - Production (Describe)
- What is Vendor's system scalability for adding additional functions or applications such as streaming video?
- Indicate Vendor's schedule for:
  - System upgrades
  - Software upgrades
  - Server upgrades
  - Scheduled maintenance
- Indicate if there is any client downtime and if so, average down time in minutes for Vendor's scheduled:
  - System upgrades
  - Software upgrades
  - Server upgrades
  - Scheduled maintenance
- What advance notice is provided to clients prior to system upgrades, software upgrades, server upgrades and scheduled maintenance?
- How many data centers does Vendor operate and where are they located? Please describe the hosting facilities in detail.
- What measures are in place to prevent unauthorized internal and external viewing or distributing of data?
- What measures are currently in place to prevent outsiders from hacking into the Vendor's system?
- What Disaster and Recovery Plan is in place in case data is deleted or destroyed, and what recourse is available to clients whose data is not recoverable?
- Does Vendor supply all services necessary to deliver an application or will the client be required to dedicate staff, full time or part time, to support the hosted solution?
- Describe Vendor's data connectivity and capacity. Include discussion of redundant network paths. Specify the bandwidths and storage currently available and planned upgrades for future growth potential.
- Indicate whether Vendor has network interconnection to local, state, regional, national and/or international networks and what their capability is to establish additional interconnections to client operated networks.
- Provide a copy of Vendor's procedures to control Internet fraud, abuse and address compliant investigations.
- Provide a copy of Vendor's Acceptable User or similar policy.
- Provide backup system diagrams, for both servers and network; include a list of equipment used with brand names and model numbers.
- Describe the process and procedure for providing security to facilities, servers, related

- equipment, software and network.
- Vendors are required to address NOC services to be made available to clients including, but not limited to, the following issues, and indicate whether these services have an additional charge.
    - Operation schedule (i.e., 2x24x52)
    - Holiday exemptions
    - Toll free number for reporting problems, status updates, etc
    - Problem escalation procedures
    - Maintenance/system upgrade, network outage schedule including advance notice provided to clients prior to network takedown
  - Vendors are required to indicate what is included in any system or equipment setup and installation services. Vendors must minimally include:
    - List of services provided in the Setup Fee
    - Average time period between setup/installation service request and technicians beginning the process
    - Average time required to complete setup, installation, testing and bring all components and services to full operational status
    - Service Levels including installation deadlines and credits for missed deadlines
  - Does your SLA address the following? Please describe in detail.
    - Purpose
    - Description of service
    - Duration of service
    - Start/end dates for service
    - Installation timetable
    - Payment terms
    - Termination conditions
    - Legal issues such as warranties, indemnity, limitation of liability, etc
    - Ownership of data
    - Metrics and reports provided to client
    - Specified level of customer support
    - Provisions for system and data security
    - Guaranteed level of system performance (i.e., sub-second response times, Continuous system availability)
  - What enforcement provisions are in place in the event that the Vendor does not deliver on the SLA, what compensation is provided a client and can the hosting agreement be cancelled without penalty?

## Help Desk:

- Describe the ongoing support available on a 24x7 basis to both technical staff and end-users including hot line or toll free numbers, day and time availability, and any restrictions. Minimum technical support response time should be indicated, with any difference clearly noted in

support response time for different users or the time of day. Describe any tiered Help Desk support services.

- If 24x7 support is not available, what hours and days is support available?
- List product name and version for each component of the proposed solution (including any third party tools) that is included in the base support offering. Describe operating system support capabilities and web browser support capabilities.
- What software do you use to track and report Help Desk trouble tickets? Describe a typical support call that follows the Vendor's support procedures. Describe escalation policies. Describe Help Desk follow-up after the issue has been resolved.
- If the Help Desk service is provided by a third-party, please indicate the name of the third-party organization(s) that will provide the actual Help Desk support and their physical location.
- Vendors are required to include a sample copy of their standard SLA for Help Desk Services as part of the RFP response. If the standard SLA applies to more than one Vendor service and has already been provided, a duplicate copy is not required.

For the table below:

Required, Optional, or Not Applicable: Required features are those that \_\_\_\_\_ has deemed mandatory. The vendor has to provide these features in order to meet the basic specifications for this RFP and, if not met, the vendor will not progress to the next evaluation phase. Optional features are those that are nice to have but not required. Not Applicable indicates features that are not pertinent to this RFP. If a feature is marked Not Applicable, the vendor does not need to respond to that item.

Yes: The feature is fully supported or implemented in the basic product and is available at no added cost.

No: The proposed solution does not support this feature.

Optional: The feature is available as an option from the vendor and is not part of the basic product and may affect the member's final cost.

Third Party Support: The feature is available as a third-party extension to the product and may affect the member's final cost.

Future Functionality: The feature is not available in the current version of the product but will be available in future versions.

Institutional Information		Vendor Responses				
	Required, Optional or Not Applicable	Yes	No	Optional (not part of Core Product)	3 <sup>rd</sup> Party	Future Functionality
<b>Help Desk Support Features</b>						
Does the proposal include 24x7x52 toll free phone support for faculty, students, and institutional technical support staff for products listed above?						
Does the proposal include technical support for faculty, students and institutional technical support staff on how to use the products listed above?						
Does the Help Desk/support proposal provide pedagogy support on how to teach using the products?						
Does the Help Desk support solution include reporting tools based on:						
Usage level						
Question types						
Resolution statistics						
Required resolution time						
Unresolved inquiry tracking						
Can the system track end user self-service usage and effectiveness?						
Does the system measure average response times for all service requests?						
Does the system have an end user accessible knowledge base?						
Can the system monitor effectiveness of knowledge base information/FAQs?						
Can end users track the progress of a trouble ticket?						

Does the primary proposer provide help Desk Services directly?						
Does the system allow the tracking of product enhancements/refinement suggestions?						

### Custom Programming:

- Vendor should identify the options that are available to customize the LMS through programming purchased from the Vendor or by the client themselves.
- Describe how custom enhancements are treated with minor and major upgrade releases.
- Describe additional consulting and/or professional services including technical consulting both onsite and offsite.

### Security, Disaster Recovery and Contingency Planning/Business Continuity:

- Describe how security is administered. Include a description of the system’s ability to delegate administration to host or domain institutions, departments, courses, sections, and users; how users and roles are added and deleted; how passwords are maintained; and whether or not and which elements of the administration can be automated. Also, identify any security administration that does not take effect immediately when the security rules are entered/stored.
- Describe the processes of backup and recovery.
  - Is recovery automatic in the case of a system failure?
  - How long does backup and recovery take for a system of the size proposed?
  - How long is the system unavailable during a recovery or backup?
  - How often does a typical customer experience a need to recover?
  - What is the likelihood of data loss?
- Describe the processes and limitations of offline data archiving. Consider the following:
  - What tools are supplied for moving data to the archive(s)?
  - Describe how data is selected for movement to the archive(s).
  - Explain the process for accessing and/or restoring archived data.
  - Does archiving incorporate a proprietary format? If so, explain in detail.
- What levels of redundancy can be integrated into the system’s architecture? (e.g., database replication, hardware, etc.)
- Describe the disaster recovery procedures and estimated recovery time for a current term in a \_\_\_\_\_ sized system (\_\_\_\_\_ users).

### Training:

- Describe the training provided with the purchase of this product including class descriptions and training objectives for end-users, technical staff, and others, including methods used (instructor led, onsite, online, virtual, “train the trainer”, CBT, etc.), locations and frequency of offerings.

- Identify the standard training and any customized training that is available to reflect individual institution needs, and include any limitations such as class sizes, locations and time limits. Consider training requirements for system/software upgrades in the response.
- Identify current subcontractors who will provide training services on behalf of the Vendor. Are they certified to provide such training?
- Specify who holds responsibility for problem resolution arising out of the training services provided by Vendor or the subcontractor

### Documentation:

- Describe the user and technical documentation that is available for the system. Include information on documentation that provides:
  - An overview of the system
  - Installation/configuration information
  - System and database administration
  - Technical information on jobs or modules executed
  - Data element documentation
  - Description of tables and views and the relationship of database entities
  - Context sensitive help
  - Training documentation
  - User manuals and other support documentation
- Can \_\_\_\_\_ modify the help documentation to meet the needs of each institution/department?
- What documentation is provided with new releases (e.g., known issues)?
- How is technical information distributed to administrative personnel?

### Community:

- Describe the ability your application has for enabling online instructors to create a community with other instructors to share ideas or build knowledge
- Describe the ability your application has for enabling online instructors to create community for students to share ideas or build knowledge. Student community building tools can include facilities to encourage and enhance morale. These tools allow the instructor to create and manage small groups using discussion threads, chats, or other course tools in a larger class so that small group members can interact with each other enough to develop friendships.
- Does your company provide any other means for clients to share ideas or build knowledge?

### Customer References

Vendors are required to submit a list of their customer references by completing the following attachment. The Evaluation Committee will be the ultimate judge of the acceptability of all references and may request the vendor to provide additional references. Vendor may submit a reference listing generated from their system as long as it includes all the information requested below and is in an easily readable format.

Customer References must include a minimum of **3 current** customers with LMS purchase agreements awarded and begun within the **last 12-months**. Additionally, **3** customer references are required with completed LMS projects and/or purchases completed within the last **24- months**. References should be customers with a program developed similar in nature, size, and scope identified in this RFP.

The Evaluation Committee reserves the right to contact any or all of the references listed. If a signed release is required prior to the committee contacting references, Vendor is required to attach a copy of their completed and signed release document as part of the RFP response. Potential references refusing to agree to speak with an Evaluation Committee representative should not be included, and alternate reference sources provided.

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**Current Customer References:**

Reflects LMS projects and/or purchases awarded and begun within the last 12 months:

**Customer Name 1:**

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City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Provided:  LMS  LOR  Vendor Hosted Solution  Purchaser-Hosted Solution

Contract Start Date: \_\_\_\_\_ Completion Date: \_\_\_\_\_

# User Licenses: \_\_\_\_\_ Project Estimated Dollar Value: \$ \_\_\_\_\_

Project Came In On Budget:  Yes  No

Successful Contract Completion:  Yes  No

Authorization received for \_\_\_\_\_ to contact customer directly:  Yes  No

**Customer Coordinator:** \_\_\_\_\_ Title: \_\_\_\_\_

Telephone: (\_\_\_\_) \_\_\_\_\_ x \_\_\_\_\_ Fax: (\_\_\_\_) \_\_\_\_\_

E-Mail Address: \_\_\_\_\_ URL: \_\_\_\_\_

**Customer Technician:** \_\_\_\_\_ Title: \_\_\_\_\_

Telephone: (\_\_\_\_) \_\_\_\_\_ x \_\_\_\_\_

E-Mail: \_\_\_\_\_

**Customer Name 2:**

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City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Provided:  LMS  LOR  Vendor Hosted Solution  Purchaser-Hosted Solution

Contract Start Date: \_\_\_\_\_ Completion Date: \_\_\_\_\_

# User Licenses: \_\_\_\_\_ Project Estimated Dollar Value: \$ \_\_\_\_\_

Project Came In On Budget:  Yes  NoSuccessful Contract Completion:  Yes  NoAuthorization received for \_\_\_\_\_ to contact customer directly:  Yes  No**Customer Coordinator:** \_\_\_\_\_ **Title:** \_\_\_\_\_

Telephone: (\_\_\_\_) \_\_\_\_\_ x \_\_\_\_\_ Fax: (\_\_\_\_) \_\_\_\_\_

E-Mail Address: \_\_\_\_\_ URL: \_\_\_\_\_

**Customer Technician:** \_\_\_\_\_ **Title:** \_\_\_\_\_

Telephone: (\_\_\_\_) \_\_\_\_\_ x \_\_\_\_\_

E-Mail: \_\_\_\_\_

**Customer Name 3:**

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City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Provided:  LMS  LOR  Vendor Hosted Solution  Purchaser-Hosted Solution

Contract Start Date: \_\_\_\_\_ Completion Date: \_\_\_\_\_

# User Licenses: \_\_\_\_\_ Project Estimated Dollar Value: \$ \_\_\_\_\_

Project Came In On Budget:  Yes  NoSuccessful Contract Completion:  Yes  NoAuthorization received for \_\_\_\_\_ to contact customer directly:  Yes  No**Customer Coordinator:** \_\_\_\_\_ **Title:** \_\_\_\_\_

Telephone: (\_\_\_\_) \_\_\_\_\_ x \_\_\_\_\_ Fax: (\_\_\_\_) \_\_\_\_\_

E-Mail Address: \_\_\_\_\_ URL: \_\_\_\_\_

**Customer Technician:** \_\_\_\_\_ **Title:** \_\_\_\_\_

Telephone: (\_\_\_\_) \_\_\_\_\_ x \_\_\_\_\_

E-Mail: \_\_\_\_\_

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## Established Customer References:

Reflects LMS projects and/or purchases awarded and begun within the last 24-months:

### Customer Name 1:

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City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Provided:  LMS  LOR  Vendor Hosted Solution  Purchaser-Hosted Solution

Contract Start Date: \_\_\_\_\_ Completion Date: \_\_\_\_\_

# User Licenses: \_\_\_\_\_ Project Estimated Dollar Value: \$ \_\_\_\_\_

Project Came In On Budget:  Yes  No

Successful Contract Completion:  Yes  No

Authorization received for \_\_\_\_\_ to contact customer directly:  Yes  No

**Customer Coordinator:** \_\_\_\_\_ Title: \_\_\_\_\_

Telephone: (\_\_\_\_) \_\_\_\_\_ x \_\_\_\_\_ Fax: (\_\_\_\_) \_\_\_\_\_

E-Mail Address: \_\_\_\_\_ URL: \_\_\_\_\_

**Customer Technician:** \_\_\_\_\_ Title: \_\_\_\_\_

Telephone: (\_\_\_\_) \_\_\_\_\_ x \_\_\_\_\_

E-Mail: \_\_\_\_\_

**Customer Name 2:**

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City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Provided:  LMS  LOR  Vendor Hosted Solution  Purchaser-Hosted Solution

Contract Start Date: \_\_\_\_\_ Completion Date: \_\_\_\_\_

# User Licenses: \_\_\_\_\_ Project Estimated Dollar Value: \$ \_\_\_\_\_

Project Came In On Budget:  Yes  NoSuccessful Contract Completion:  Yes  NoAuthorization received for \_\_\_\_\_ to contact customer directly:  Yes  No**Customer Coordinator:** \_\_\_\_\_ **Title:** \_\_\_\_\_

Telephone: (\_\_\_\_) \_\_\_\_\_ x \_\_\_\_\_ Fax: (\_\_\_\_) \_\_\_\_\_

E-Mail Address: \_\_\_\_\_ URL: \_\_\_\_\_

**Customer Technician:** \_\_\_\_\_ **Title:** \_\_\_\_\_

Telephone: (\_\_\_\_) \_\_\_\_\_ x \_\_\_\_\_

E-Mail: \_\_\_\_\_

**Customer Name 3:**

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City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Provided:  LMS  LOR  Vendor Hosted Solution  Purchaser-Hosted Solution

Contract Start Date: \_\_\_\_\_ Completion Date: \_\_\_\_\_

# User Licenses: \_\_\_\_\_ Project Estimated Dollar Value: \$ \_\_\_\_\_

Project Came In On Budget:  Yes  NoSuccessful Contract Completion:  Yes  NoAuthorization received for \_\_\_\_\_ to contact customer directly:  Yes  No**Customer Coordinator:** \_\_\_\_\_ Title: \_\_\_\_\_

Telephone: (\_\_\_\_) \_\_\_\_\_ x \_\_\_\_\_ Fax: (\_\_\_\_) \_\_\_\_\_

E-Mail Address: \_\_\_\_\_ URL: \_\_\_\_\_

**Customer Technician:** \_\_\_\_\_ Title: \_\_\_\_\_

Telephone: (\_\_\_\_) \_\_\_\_\_ x \_\_\_\_\_

E-Mail: \_\_\_\_\_

## Glossary

### **Accessibility Compliance:**

Accessibility compliance means meeting the standards that allow people with disabilities to access information online. Persons with disabilities (e.g., the blind) use a device to “read” the screen. Accessibility for persons with disabilities entails providing for a version that can be processed by a screen reader such as JAWS. Many screen readers have difficulty rendering frames, tables, and images (without alt text tags). The practical accessibility difficulties are compounded by the fact that many persons with disabilities do not have the recent equipment and software.

### **Assessment Tools:**

Defined as tools allowing instructors to review quizzes, tests, and other student assignments, analyze results, assign weights to questions and generally assess student, class, and course progress.

### **Authentication:**

Authentication is a procedure that works like a lock and key by providing access to software or a computer system by a user who enters the appropriate user name and password. The term also can refer to the procedure through which user names and passwords are created and maintained. Authentication systems can involve a single logon, which is the most user friendly and most vulnerable to hacking. More complicated systems can involve layers with separate logins for each layer and secure socket layer transaction (SSL) encryption.

### **Automated Testing and Scoring:**

Automated testing and scoring tools allow instructors to create, administer, and score objective tests. Some products provide support for proctored testing in a suitable computer lab classroom as an approach to ensuring academic honesty.

### **Bookmarks:**

Bookmarks allow students to easily return to important pages within their course or outside their course on the web. In some cases bookmarks are for an individual student’s private use, and in others can be shared with an instructor or with an entire class. Some systems also allow bookmarks to be annotated. Bookmarks allow students to easily return to important pages within their course or outside their course on the web. Systems vary in allowing students to store their bookmarks in a course folder, a personal folder, or a private folder. Course folders are open to all students and instructors in a course. Personal folders contain bookmarks that individual students can share whereas bookmarks in private folders are for the student’s own use.

**Course Authorization:**

Course authorization tools are used to regulate who can use the software and in what way. Authorization tools assign access privileges and other privileges to specific users or user groups.

**Course Management:**

Course management tools allow instructors to control the progression of an online class through the course material. Course management tools are used to make specific resources in a course, such as readings, tests, or discussions, available to students for a limited time only or after some prerequisite are achieved. This deliberate unfolding of the course resources can be used to prevent students from being overwhelmed and discouraged. Some systems enable this course management to be individualized so that course experience can be tailored to accommodate individual learner situations.

**Course Templates:**

Instructors use templates to go through a step-by-step process to set up the essential features of a course. Course templates are artifacts of particular pedagogical approaches to instructional content and process. The local value of particular templates will depend in part on the match between the template designer's approach and the specific instructor's approach.

**Curriculum Management:**

Curriculum management provides students with customized programs or activities based on prerequisites, prior work, or testing. Curriculum management includes tools to manage multiple programs, to enable skills/competencies management, and to handle certification management. These tools may be similar to the tools used in student services as part of providing academic advising to students.

**Customized Look and Feel:**

Customized look and feel is the ability to change the graphics and how a course looks. This also includes the ability to provide institutional branding for courses. Customized look and feel also includes the branding of content with institutional logos and navigation to provide a consistent look-and-feel across the entire institutional site and integration with additional institutional resources, such as the library.

**Discussion Forums:**

Discussion forums capture the exchange of messages over time, sometimes over a period of days, weeks, or even months. Threaded discussion forums are organized into categories so that the exchange of messages and responses are grouped together and are easy to find. Discussion forums tools are very similar to Usenet newsgroups where text conversations over time are displayed. The organization of the messages can be a simple temporal sequence or they can be presented as a threaded discussion where only messages on a specific topic called a thread are displayed in sequence. Discussion forums provide automatic notification of new entries showing when an instructor logs in.

**File Exchange:**

File exchange tools allow learners to upload files from their local computers and share these files with instructors or other students in an online course. Note: File attachments to messages are part of Internal Email and Discussion Forums. File Exchange tools enable downloading files and upload or posting files over the Web from within the course (e.g., assignment drop box or collaboration/group tools).

**Group Work:**

Group Work is the capacity to organize a class into groups and provide group workspace that enables the instructor to assign specific tasks or projects. Some systems also enable groups to have their own communications features like real-time chat and discussion forums.

**Help Desk Services**

High quality, comprehensive help desk services to support LMS and LOR systems on a 24 x 7/365 basis for faculty and students. The most competitive proposals will support multiple platforms with both live phone and web-based support. The most valuable proposals will include support or build support for successful vendor solutions identified through this RFP.

**Hosted Services:**

Hosted services mean that the online learning application provider furnishes the application with the server and technical support from their location so the institution does not provide any hardware. Off-site hosting is the service of course hosting from servers at the application provider's location so that the local institution does not need an application server or the associated network hardware and software (a.k.a. outsourcing web services). An important aspect of outsourcing course hosting is that it includes outsourcing the associated technical support and maintenance as well as the actual web service of providing courses.

**Instructional Design Tools:**

Instructional design tools help instructors create learning sequences, for example, with lesson templates or wizards.

**Instructional Standards Compliance:**

Instructional standards compliance concerns how well a product conforms to standards for sharing instructional materials with other online learning systems and other factors that may affect the decision of whether to switch from one product to another. Instructional standards compliance involves trying to make it possible for applications from different product producers to work well together. There are presently several proposed standards but the most prominent are the standards developed by the IMS Global Learning Consortium that define the technical specifications for interoperability of applications and services in distributed learning and support. The IMS standards can be found at [www.imsglobal.org](http://www.imsglobal.org). The SCORM reference implementation integrates industry specifications from IMS, AICC, IEEE, and ARIADNE and is an operational standard with corresponding compliance test suites for learning objects

([www.adlnet.org/main.html](http://www.adlnet.org/main.html)). Other migration considerations are situations that would make switching to another application more complicated, such as proprietary data formats for content, which make it difficult to import course content into another application. To the extent that student data is maintained in the system there can be separate complications in migrating non-course information to other versions or platforms.

**Instructor Community Building:**

Defined as tools enabling online instructors to create a community with other instructors to share ideas or build knowledge

**Instructor Helpdesk:**

Instructor helpdesk tools include resources available for instructors who need help using the product software. This does not typically include assistance with content. Instructor helpdesk tools may enable instructors to create a community with other instructors to share ideas or build knowledge.

**Internal E-Mail:**

Internal email is electronic mail that can be read or sent from inside an online course. Email tools enable messages to be read and sent exclusively inside the course or alternatively the tools enable links to external email addresses of those in the course so that contacting course members is facilitated. Internal email may include an address book and some address books are searchable.

**Learning Content Management System (LCMS):**

An environment where instructional designers and developers can create, store, reuse, manage, and deliver learning content from a central object repository, usually a database. A LCMS generally works with content that is based on a learning object model. These systems usually have good search capabilities, allowing developers to find quickly the text or media needed to build educational content. These assets may include media files developed in other authoring tools, assessment items, simulations, text, graphics, or any other object that makes up the content within the course being created. Similar Terms: Content Management System (CMS), Learning Objects Repository (LOR).

**Learning Cycle Management Process:**

Learning Cycle management deals with all the tools necessary to add courses individually or in batch and the ability to purge courses when no longer in use. The ability to archive courses is also important.

**Learning Management System (LMS):**

Software for delivering, tracking and managing a learning environment. LMSs range from systems for managing training records to software for distributing courses over the Internet and offering features for online collaboration. Most LMSs are web-based to facilitate access to learning content and administration. Similar Terms: Course Management System (CMS), Managed Learning Environment (MLE), Learning Support System (LSS), Online Learning Centre (OLC), Virtual Learning Environment (VLE)

or Learning Platform (LP.) Standards based applications that includes learner tools (communication tools, productivity tools, and student involvement tools) and support tools (administration tools, course delivery tools, and curriculum design tools) that enable the delivery of on-line learning.

**Learning Object Repository (LOR):**

See Learning Content Management System (LCMS).

**Online Grading Tools:**

Online grading tools help instructors mark, provide feedback on student work, and manage a grade book. Online grading tools enable instructors to mark assignments online, store grades, and delegate the marking process to teaching assistants. Some tools allow instructors to provide feedback to students, to export the grade book to an external spreadsheet program, and to override the automatic scoring.

**Online Journal/Notes:**

Online Journal/Notes enable students to make notes in a personal or private journal. Students can share personal journal entries with their instructor or other students but cannot share private journal entries. This tool can be used to facilitate writing assignments in which parts are written over time and then later assembled into a document. This tool also can be used to make personal annotations to pages of a course that can later be used as a study aide. The Online Journal/Notes tool can also be used to record reflections about personal learning accomplishments and how to apply this new knowledge.

**Orientation/Help:**

Orientation/Help provides tools to help students learn how to use the online learning software, often in the form of a self-paced tutorial, guide, or student helpdesk. Orientation/Help tools enable the student to make the best use of the software. These tools provide tutorials or guides to the various aspects of the software. Sometimes additional tools are included to support effective study practices, which can range from simple review tools to mini courses in how to study effectively. Student helpdesk tools facilitate the tasks of an operator responding to requests for help by student users of the application and may include some online resources directly available to students such as context sensitive helpful hints and wizard style assistants. A student helpdesk does not typically offer help with course content.

**Plan/Progress Review:**

Student progress review tools enable students to plan for their workload and assignments typically through a course calendar. This may include the use of an online calendar. Student progress review tools enable the student to check marks on assignments and tests as well as their progress through the course material. In some tools there are additional provisions to support student workload planning as well by means of a calendar type of tool.

**Real-Time Chat:**

Real-time chat is a conversation between people over the Internet that involves exchanging messages back and forth at virtually the same time. Chat includes facilities like Internet Relay Chat (IRC), Instant Messenger, and similar text exchanges in real time. Some chat facilities allow the chats to be archived for later reference so that they may be more easily used as part of a course grading system.

**Registration Integration:**

Registration tools support the enrollment of students in an online course either by the instructor or through self-registration of the students themselves or through integration with the Student Information System. Registration tools also include tools for secure credit card transactions. Some registration tools allow instructors to enroll students in batches through the use of formatted text files. Time limited student self-registration may also be available to shift the data entry process to the students. This feature includes the integration of the online learning system with an administrative student registration or information system. Integration with Student Information System tools provides the ability for the application to work with known Student Information Systems (e.g., SCT Banner, PeopleSoft, and Datatel, etc.). Typically, integration will allow for the following types of functionality: shared common student information, ability to transfer grades back and forth, and ability to have common accounts. The registration tools for secure transactions may also involve making additional arrangements with financial institutions for the funds to be transferred to the institution, and these arrangements may have a separate cost structure.

**Reporting and Querying Process:**

Reporting features include the ability to review and analyze information in multiple formats, sorting by user defined fields. Querying is the ability for users to obtain discrete data elements through ad-hoc requests including phonetic searching.

**Resume Course Function:**

Resume Course Function is a placeholder that allows users to save their place in an online course or Sharable Content Object even after the browser is shut down

**Searching within Course:**

Searching within a course is a tool that allows users to find course material based on key words. Searching tools enable students to locate parts of the course materials on the basis of word matching beyond the user's current browser page (which can be searched using the browser>edit>find menu).

**Self-Assessment:**

Self-Assessment tools allow students to take practice or review tests online. These assessments do not count toward a grade. When self-assessment tools are combined with pedagogical skill in preparing the content of the test items and response feedback there can be positive effects on student motivation.

**Student Community Building:**

Student community building tools enable online instructors to create community for students to share ideas or build knowledge. Student community building tools can include facilities to encourage and enhance morale. These tools allow the instructor to create and manage small groups using discussion threads, chats, or other course tools in a larger class so that small group members can interact with each other enough to develop friendships.

**Student Portfolios:**

Student portfolios may be used by students as personal homepages or may be a place for them to showcase their work in a course and cumulative academic history.

**Student Tracking:**

Student Tracking is the ability to track the usage of course materials by students and to perform additional analysis and reporting both of aggregate and individual usage. Student tracking tools include facilities for statistical analysis of student-related data and the display the progress of individual students in the course structure. The data generally consists of both activities and the time stamps of when the activity occurred.

**Third Party Tools:**

Supporting tools that will enhance the value of the LMS. Such products may include assessment tools, management tools, and collaboration tools.

**Video Services:**

Video services enable real-time voice and picture (video) interaction as part of the course. Video services include tools for broadcasting video to those without a video input device. Some video services provide for two-way or multi-way video conferencing, which may be point-to-point connections or mediated through a central server.

**Whiteboard:**

Whiteboard/video tools include an electronic version of a dry-erase board used by instructors and learners in a virtual classroom (also called smartboard or electronic whiteboard) and other synchronous services such as application sharing, group browsing, and Voice over IP (also called VoIP or voice chat). Application sharing allows a software program running on one computer to be viewed and sometimes controlled from a remote computer. For example, an instructor using this feature can demonstrate a chemistry experiment or a software utility to an online student and allow the student to use the demonstration software from his/her own computer. Group web browsing allows an instructor to guide learners on a tour of web sites using a shared browser window. Voice over IP tools enable two or more to communicate via microphone and speaker conference call style over the Internet connection in real time. Alternatively, a functionally similar tool is used to set up and manage a conference call using the telephone system.

**Work Offline/Synchronize:**

This feature provides the ability to work in the course environment offline, and for the work to be synchronized with the next log-in to the course environment. In some products the resume course function also lets users save their place in an online course. This applies to work on PDAs (e.g., Palm, Handspring). The ability to work in a course environment offline is especially useful in situations where communication links are unreliable or expensive. This offline environment is essentially a local client application that embodies the important features of the online product without the constant connection to the Internet. When the user resumes the course, the resume course tool could be used to take the user to the course page or Sharable Content Object where they had stopped working.