

Question #	Question	Answer
1	RFS calls for acquiring prototype capabilities -Does this mean we need to build the prototype and then transfer to DoD -Is there a product / commercialization phase after the proto phase that company will be involved in -More specifically is this RFS looking for a product company or software development company	The prototype capability will be fully functional software in DoD but not an enterprise product. It will be targeted for a small number of users and will not be intended to scale. Upon acceptance, the prototype capability will need to transition to DoD and go through security processes to become a vetted software product, which is the rationale for security documentation. The prototype should be designed for achieving IL4 accreditation, but no accreditation steps are required from the vendor.
2	Does the company own the IP / product or does it belong to DoD	The vendor retains ownership to all technical data developed under this project. The Government shall be provided Unlimited Data Rights as defined in Attachment 2 of the RFS, for any technical data developed by the vendor, exclusively funded by the Government. The Government will collaborate with the performer to determine which, if any, deliverables should be made open source. Open-source software developed under this project shall be released under an Apache 2.0 open-source license or similar licenses acceptable to the performer and Government.
3	What rights does a company have to use the IP created during this project for other non-defense commercial opportunities	All rights not granted to the Government are retained by the vendor. The vendor retains ownership to all technical data developed under this project and shall have the right to use the technical data for other non-defense commercial opportunities. The Government shall be provided Unlimited Data Rights as defined in Attachment 2 of the RFS, for any data developed by the contractor, exclusively funded by the Government. The Government will collaborate with the performer to determine which, if any, deliverables should be made open source. Open-source software developed under this project shall be released under an Apache 2.0 open-source license or similar licenses acceptable to the performer and Government
4	What is DoDs desired timeline to complete this project	12 months. The prototype should be able to function enough to perform required tasks within 12 months.
5	What access will we have to DoD knowledge resources to turn proposed plan into detailed SOW and execution that meets DoD requirements	All resources required to execute this project are available through the cmi5 Working Group. After evaluation are completed, the Government will recommend the most highly rated solution to proceed into SOW collaboration and award.

Question #	Question	Answer
6	How will the 7.1.3 Focus Area 3 Project Management be evaluated. Does vendor need to submit specific documents for this evaluation	The Government is not dictating how the vendor shall satisfy this requirement, however, please reference Section 7.2.3. Vendors shall describe their company's methodologies, organizational structure, quality assurance processes, and staffing they intend to use to manage this prototype project.
7	What is the scope of RFS? It is being let by ARMY but is applicable to all DoD training, across all forces?	The scope is detailed in Section 2.2 Program Objectives of the RFS. Yes, It is being let by ARMY but is applicable to all DoD training, across all forces
8	What if any additional 508 compliance requirements must be met? If open source solution, who bears responsibility for meeting 508 compliance requirements of the content?	This project poses no additional 508 requirements beyond the minimum required by any Government software. The open source nature does not change 508 requirements. GFI delivered will not put 508 requirements on vendor.
9	Will high side content will be allowed/considered by the CTS?	The CTS will eventually be deployed to validate conformance for all cmi5 content, including high-side. This is not a requirement for this period of performance, nor does the targeted test environment support this.
10	What if any "mandate" will be applied to use of cmi5 across DoD?	Not Applicable at this time. This is not a RFS requirement.
11	What is the definition of Government offices?	In this context, any US Government organization that deploys distributed learning, whether developed internally or contracted.
12	Will specific courses be provided to use as examples? If so, how many and will the courses vary in their current packaging?	Yes. Up to 5 courses will be provided after award. The packaging will likely include SCORM and possibly content with no packaging/standards applied.
13	What is the definition of the T&E community referenced? Does this apply to anyone in contact with DoD training?	The Training and Education (T&E) community includes industry, academia, and government organizations that are responsible for the development and delivery of training. This applies to all DoD components responsible for Training and Education.
14	Is there one DoD office that will be the driver of managing	Governance is not within the scope of this project so there are no such requirements.

Question #	Question	Answer
	the results of this conformance test? Is DoD looking for governance of the testing as a service? Is the contractor expected to propose an acceptance and/or governance process an management process for conformance testing?	
15	Today, for DoD online training, JKO has a three week acceptance and testing process, will JKO/J6 or J7 play a pre-defined role in conformance testing?	No such roles have been determined at this time for this prototype project. It is anticipated that many organizations, including JKO, will eventually acquire and deliver cmi5 courses. In these instances, it is possible that the CTS may play a role in the associated acquisition strategies.
16	What version of SCORM is in use?	DoD primarily uses SCORM 2004 3rd Edition. The ADL Initiative recognizes SCORM 1.2, SCORM 2004 3rd Edition, and SCORM 2004 4th Edition as the only viable versions of SCORM.
17	Is it possible to share the number of courses?	Five courses.
18	Are there any standard authoring tools used (internally or externally) for creating SCORM packages currently and being considered to create CMI5 compatible content in the future?	Not in the scope of this project.
19	Does DoD have access to source files for SCORM packages?	Yes, and they will be provided as GFI after award. Requirements can be collaborated between contractor and ADL Initiative.
20	This is not listed as a deliverable in 5.2.6. Is this not to be considered as a deliverable?	What is "This" in the context of this question? If this is about the templates, they are courses with templates applied with documented practices.
21	What is the definition of a basic player?	The player is a " <b>open source cmi5 player prototype</b> that serves as a foundation for traditional Distributed Learning (DL) courses and content while also delivering a resource to the Training and

Question #	Question	Answer
		Education community that can be built upon to add additional features and capabilities as needed by other DoD stakeholders."
22	Why is the player being referred to as a prototype?	Cmi5 is an established line of research within the ADL Initiative; therefore, this work is ultimately a research effort. We anticipate that the prototype capability delivered through this effort will be rigorously tested, evaluated, and ultimately matured into an operational capability.
23	A cmi5 CTS will enable DoD-wide testing and certification for cmi5-conformant applications > How is the testing of a CMI5-conformant application is expected to happen? Will a course tested using CMI player and working fine be tested on the CMI5-conformant application? Are there any specific systems that we already need to consider?	As a part of the prototype development process, evaluators can test specific content or systems. Vendors may also self-test and report results that are validated through logs. This prototype can validate either content or systems and those validated systems can be then used with validated content. This capability exists with the xAPI Conformance Test used for validating that LRS solutions are conformant to the xAPI standard. No specific systems need to be considered - this is an entirely new research effort.
24	More advanced technological approaches are anticipated for the cmi5 CTS > Can you please specify the technological approaches that are anticipated?	The ADL Initiative anticipates that innovative technical approaches will become more obvious as the testing requirements in the cmi5 specification are analyzed. The new capabilities enabled by cmi5 will likely require a user to follow on-screen instructions or automated web functions such as "upload".
25	Why is the Test Suite being referred to as a prototype?	Cmi5 is an established line of research within the ADL Initiative; therefore, this work is ultimately a research effort. We anticipate that the prototype capability delivered through this effort will be rigorously tested, evaluated, and ultimately matured into an operational capability.
26	What is the governance authority of the cmi5 Working Group? Does this group drive the requirements for and procurement of the services indicated in the RFS?	The cmi5 Working Group is an open effort originally founded by the now-defunct AICC. They have no formal authority, but their expertise and developed products should be leveraged in any solution, as they are the Subject Matter Experts.
27	Is the intent of DoD to house the solution on an approved,	The cmi5 player will eventually be deployed in a DoD approved IL4 environment. The prototype should be designed for achieving IL4 accreditation, but no accreditation steps are required from the vendor.

Question #	Question	Answer
	and proven FedRamped cloud?	The CTS will eventually be deployed and made available to the community. Further work is required to determine hosting requirements for the CTS.
<b>28</b>	The purpose of a CTS is to validate that all aspects of cmi5 (and by inheritance, xAPI) are followed in accordance with the technical requirements. xAPI is quite detailed, shall we assume testing in context of CMI5 profile only?	No, that cannot be assumed. For the content test, all requirements defined in the RFS must be followed. " A potential solution may be supported by the utilization of the current LRS conformance test suite in the workflow.
<b>29</b>	Are there any templates that the government uses for different deliverables outlined in 5.2.6?	Contractor format is acceptable for the deliverables outlined in section 5.2.6. Many of the design/development artifacts are fashioned after an equivalent U.S. Data Item Description (DID) and while that format is acceptable, it is not required.
<b>30</b>	Page 9 – Capability Demonstrations	See Responses Below:
<b>31</b>	Is this for the RFS response or once the RFS is awarded, for the end of prototype development? Who are the Stakeholders and what is the Stakeholder responsibility in this effort outside of the cmi5 Working Group members.	The capability demonstration is planned for after contract award, towards the end of prototype development. Stakeholders are comprised of the Defense Advanced Distributed Learning Advisory Council (DADLAC). The capability demonstration is intended to create an overall awareness and understanding of the capabilities being delivered.
<b>32</b>	What is the definition of the user groups listed under cmi5 Player and Test Suite Documentation – learners, instructors, administrators and developers?	Cmi5 and usability requirements should dictate user roles and experience. At a minimum "basic user"/learner and administrator will be needed. Other implemented features may dictate additional roles.
<b>33</b>	Will contractor be expected to travel to participate in face-to-face meetings? If so, where might those locations be?	Especially in lieu of COVID-19, travel will not be likely, but a small travel budget for larger events (should they be possible) should be included. Budget three, two-person, 3 day, and 2 night trips to Alexandria, VA.

Question #	Question	Answer
34	The scope of the content to be migrated has an impact on the RFS Response and assumptions therein. Does the scope of content include the range of items in milSuite	The content to be migrated to cmi5 is intended to show how some of the more common features or capabilities enabled by SCORM can be implemented in cmi5. Cmi5 does enable capabilities beyond what SCORM is capable of but building out those exemplars is beyond the scope of this effort. The ADL Initiative will work with the selected vendor to determine which courses will be migrated.
35	Is there a specific period and/or volume of prototype activity that is required prior to updating DOD Instruction 1322.26? What is the decision-making authority for this type of a policy change?	Policy change is done at the discretion of the Defense Advanced Distributed Learning Advisory Council (DADLAC) and coordinated by the ADL Initiative. There aren't any metrics for when/how this occurs, and should have no impact on proposed solutions.
36	Is there a preferred technology stack to be used for development of PTS?	No, but justification of a stack given integration possibilities is highly encouraged, especially in pursuit of future IL4 requirements.
37	Should we assume that the development of the Test Suite will be on the same lines as existing ADL SCORM test suite on ADL site?	It would be fair to say that the cmi5 CTS may have similar functionality, but tools, technologies, and methodologies have changed since the SCORM Test Suites were developed. Many outdated practices and technologies used for the SCORM CTS should not be used to build the cmi5 CTS.
38	Import, register, authorize content implies some LMS like functionalities. Need to confirm the extent to which this should be available in a cmi5 player. As this is a prototype, is ADL expecting the player to support some fixed users with fixed specific roles as defined in the document, and sample courses with learners pre-registered to these courses?	Yes, to implement cmi5 requirements, the player should behave like an LMS and accordingly support user roles and functions. The sample courses do not need to be integrated into the player, they simply must play correctly.
39	Is the cmi5 compliant LMS / LRS expected to be available for use by vendor? If not,	The Government retains ownership to all work developed under this project. Government intends to open source project, which ADL recommends licensing under a Creative Commons license and software development process and products should be tailored as such. Question is not clear, nor

Question #	Question	Answer
	would ADL provide test environment with such components for integrating with (and use in testing)?	would test environment requirements. Government will provide such an environment for TLA integration testing, but otherwise will not supply such an environment.
40	Which of the following would be typical usage of this prototype by DoD?	See Responses Below: Line 43 & 44.
41	a) Use import functionality to validate their new course packages from time to time as legacy content is migrated to cmi5 standards	The Government requirements are to allow vendors and government offices to validate that cmi5 software applications as well as content packages adherence to the specification. The requirements allow the vendor to determine when the validation will take place and will not impose an approach on how or when this is accomplished.
42	b) Enhance the player prototype for any other use not mentioned in this document	Under the Open Source license and unlimited rights, the DoD intends to obtain the ability to enhance the player prototype as required.
43	In project objectives, there is a mention of “cmi5 Content Examples and Authoring guide”. Are both these deliverables of this project? If yes, is it only related to the course structure differences in SCORM and CMI5? If not, please provide details of the expectation form the documents and content examples	The cmi5 content examples listed under program objectives are the same as the cmi5 course examples listed in Table 2 under section 5.2.6. The Authoring guide listed under program objectives is the same as the cmi5 Best Practices Guide listed in Table 2 under section 5.2.6. This document is intended to focus on how to use the cmi5 templates to support the migration of a course from SCORM to cmi5. They go beyond just structural differences. Both are deliverables of this project. It is expected that someone with limited experience or knowledge of cmi5, could use the courses and documentation to understand how to build such courses.
44	Could you elaborate the cybersecurity requirements that the player and conformance test suite need to meet? If there are any standards that the player and test suite need to comply with, please provide details of those	As identified in section 5.2.6 “Project Technical Objectives” the prototype should be designed for achieving IL4 accreditation, but no accreditation steps are required from the vendor. The player and test suite must comply with cmi5, which means it is compliant with xAPI.

Question #	Question	Answer
45	As reviews by cmi5 working group are mentioned, please let us know whether all artifacts produced by vendor will be reviewed by the cmi5 working group? What would be minimum, typical, and max elapsed duration in days for receiving feedback or confirmation of acceptance of the uploaded / submitted artifact?	The ADL Initiative will work to review and provide feedback on any artifact as quickly as possible, but no longer than 10 business days from the time of submittal. The ADL controls all review processes and while valuing cmi5 Working Group feedback, it will not impact any timeline.
46	What are ADL's standard document templates for various document deliverables like (System Architecture Report, Test and Evaluation Plan, RTVM format requirements document etc.)? Could you provide these to vendors now? If not, could you provide the formats and table of contents?	ADL Initiative has no such standard templates for System Architecture Report, Test and Evaluation Plan, RTVM format requirements document etc., and are to be delivered in vendor format.
47	The document mentions need to integrate with TLA sandbox components. Which components of the sandbox would we need to integrate with? Would the sandbox be available for access by vendor throughout the project duration? If not, for which tasks would vendor be able to and expected to use sandbox for?	While TLA integration is mentioned within the solicitation, it is to align with ADL Initiative research. The requirements of IL4, Open Source, cmi5/xAPI, and being designed for use on an AWS or equivalent environment will adequately cover TLA integration efforts. Yes, the sandbox will be available throughout the project duration.
48	The text in exit criterion for Test and Evaluation document	That section has been revised in the amended RFS.



Question #	Question	Answer
	<p>appears to be incomplete. Please provide the completed text for the same.</p>	
<p><b>49</b></p>	<p>Could you please specify the browser (IE, Chrome, Firefox, and Safari) cmi5 player needs to support for the prototype?</p>	<p>Edge and Chrome preferred, other browser support is encouraged. Refer to IL4 requirements as well.</p>
<p><b>50</b></p>	<p>We are assuming that the cmi5 player prototype user interface needs to support English language only. Please confirm.</p>	<p>This is correct, the prototype player shall support English only.</p>
<p><b>51</b></p>	<p>We are assuming that user data management (add/edit/delete user data) and content management (add/update/delete content data) is understood as out of scope. Please confirm.</p>	<p>Correct. The player should be able to read and write Statements from the LRS, but otherwise the user data and content management are not requirements. They could, however, be part of an expanded feature set in a follow-on event.</p>
<p><b>52</b></p>	<p>Which SCORM versions do we need to consider in the scope of migration and cmi5 Exemplars?</p>	<p>ADL Initiative only recognizes SCORM 1.2, SCORM 2004 3rd Edition and SCORM 2004 4th Edition as valid versions and GFI will be delivered as such. Similarly, only these three versions will need to be addressed in documentation.</p>
<p><b>53</b></p>	<p>Could you please specify the performance benchmark related requirements to be considered for this project?</p>	<p>The only benchmarking requirements are included in the Government Acceptance Testing where the intention is to establish and document the baseline capability (ability to meet all requirements, scalability, concurrent users, ability to ingest large course packages, etc.).</p>

Question #	Question	Answer
54	Could you please help us with the link for DoD's Risk Management Framework (RMF) to be referred to?	Please refer to IL4 requirements for all Cybersecurity/RMF. The prototype should be designed for achieving IL4 accreditation, but no accreditation steps are required from the vendor.
55	Could you provide the details of IL2 environment?	Please refer to IL4 requirements for all Cybersecurity/RMF. The prototype should be designed for achieving IL4 accreditation, but no accreditation steps are required from the vendor.

Question #	Question	Answer
56	Is it expected to demonstrate migration of few existing SCORM packages to cmi5 courses?	Yes. This is the purpose of the templates and authoring guides.
57	Will ADL provide the content for courses in CTS or Vendor is expected to create the course content? If Vendor is expected to create the course content, please find the questions below:	The content, in the form of courses, WILL be provided for the example courses/templates as GFI after award.
58	a) Will there be any content specifications such as how many hours of the content will be required or what will be the topics?	N/A
59	b) Are there any authoring tool preferences?	N/A
60	c) Will ADL provide a basic subject matter expertise for content creation of or a Vendor should source the raw content?	N/A
61	d) Do we need to follow Section 508 or accessibility standards (WCAG 2.1) for the content?	N/A

Question #	Question	Answer
62	This section states, “cmi5 Content Examples and Authoring guide – Convert and test SCORM-based e-learning content into the cmi5 format. To aid DoD organizations, clear guidance and resources are required such as cmi5 conversion templates, example converted and tested courses, and an authoring guide to share best practices.”	The cmi5 content examples listed under program objectives are the same as the cmi5 course examples listed in Table 2 under section 5.2.6. The Authoring guide listed under program objectives is the same as the cmi5 Best Practices Guide listed in Table 2 under section 5.2.6. This document is intended to focus on how to use the cmi5 templates to support the migration of a course from SCORM to cmi5. They go beyond just structural differences. It is expected that someone with limited experience or knowledge of cmi5 could use the courses and documentation to understand how to build such courses.
63	a) Much of this does not appear to be listed in the deliverables. We see cmi5 templates, but not converted SCORM content. Is this correct?	The “cmi5 Exemplar” task is to develop 5 templates, which are courses, delivered as SCORM conformant GFI after award. There is no additional hidden task.
64	b) If SCORM content is to be converted, are there specific packages to be converted? Who provides them? How complex are they? If they are provided by the requestor, can they be provided so they are evaluated as part of this proposal effort?	GFI will be provided in the form of five SCORM courses as GFI after award. They will not be overly complex. They will not be provided until after award.
65	This section states, “The cmi5 player will provide a basic capability to play cmi5-enabled courses required in order to provide easy access to a cmi5 player without other bundled software applications or third-party license fees.” This cmi5 player will be used with an (or multiple) LRSs so it	Yes

Question #	Question	Answer
	will have a reliance on external software applications. Some LRSs are open source, others are not. Is this an acceptable reliance on 3rd party software?	
<b>66</b>	This section states, "DoD requires some way to verify that cmi5-based software applications and cmi5-courseware is fully compliant to the cmi5 specification."	See Responses Below: Line 67 & 68.
<b>67</b>	a) Does "cmi5-based software applications" mean a cmi5 LMS or something else? Any details would be helpful.	Both cmi5 LMSs and content should be testable. Software applications is a catch-all. Authoring tools are "testable" in that their output would be testable.
<b>68</b>	b) If "cmi5-based software applications" does mean an LMS test, can this deliverable be broken into two separate systems - a content test and an LMS test. It seems this separation will be more appropriate as the type of tests and means of testing will broadly vary in these two cases	A solution with separate systems is acceptable. Similar to the SCORM Test Suite, a "launching page" may be appropriate to direct users to the correct test.

Question #	Question	Answer
69	<p>This section states, “A similar process was used for SCORM course acquisition; however, more advanced technological approaches are anticipated for the cmi5 CTS.” Our team is unsure of the advanced technological approaches expected in this TREX project. Can additional details be provided to describe exactly what is expected here?</p>	<p>The SCORM Test Suite and Sample Run-Time Environment are standalone applications installed to a Desktop environment and have aged horribly with the non-backwards compatibility of Java and passage of time. The inclusion of these applications in this RFP is in regards to their purpose, not the software stack or practices used to build them.</p>
70	<p>While our businesses qualify as “or Small Businesses” none of our businesses meet their definition of “nontraditional” (per the RFS, page 5, 5.1.2.1.). Do we need a non-traditional partner to propose?</p>	<p>No. All participants must be a small business or there must be participation by a non-traditional.</p>
71	<p>The project deliverables for requirements, design, and testing seem to follow a waterfall model. Is it acceptable to provide a solution that uses an agile iterative approach in lieu of a waterfall approach? This would replace some deliverables with backlogs and sprints curated in conjunction with the client that meet the</p>	<p>Yes an alternative prototype solution approach is acceptable. The waterfall model was provided for readability and to provide estimated levels of efforts. The engineering prototype solution may vary per vendor and is part of the innovation and knowledge of the response.</p>

Question #	Question	Answer
	<p>same purpose as the original deliverables</p>	
<p><b>72</b></p>	<p>This section states that “The cmi5 content player will function as an authenticated, web-based system...” What is meant by the content player being an “authenticated system” in this context? Please provide more details on this requirement if possible.</p>	<p>It is expected that a user will need to authenticate to the system. As cmi5 handles "registrations", there is an authentication portion to this. It is also anticipated that more than a single user can access an installation/deployment of the cmi5 Player.</p>
<p><b>73</b></p>	<p>This section states, “This includes the multiple roles of learner, instructor, cmi5 conformance test user, and administrator.”. This bullet is about the CTS. Can you provide information on what is expected in each of these roles on the CTS? What does a learner do? An instructor? Were these intended as users of the cmi5 player? If these are for the player, the cmi5 Conceptual Model only talks about learners and administrators. Can you help specify what these roles do?</p>	<p>Cmi5 and usability requirements should dictate user roles and experience. At a minimum “basic user”/learner and administrator will be needed. Other implemented features may dictate additional roles.</p>

Question #	Question	Answer
74	<p>This section states, “The contractor must use the list of tests developed by the cmi5 Working Group as a basis but may modify them as necessary.” Are these tests publicly available now? Are there drafts or any current work that can be evaluated? If these are in progress, are there any thoughts on how to minimize potential schedule impacts on an external organization that the team may not be able to affect?</p>	<p>The testing requirements can be found at <a href="https://github.com/AICC/CMI-5_Spec_Current/blob/quartz/cmi5_test_requirements.md">https://github.com/AICC/CMI-5_Spec_Current/blob/quartz/cmi5_test_requirements.md</a>. There are also Developer (see link on website) tools at <a href="https://aicc.github.io/CMI-5_Spec_Current/">https://aicc.github.io/CMI-5_Spec_Current/</a>. The ADL controls all review processes and while valuing cmi5 Working Group feedback, it will not impact any timeline.</p>
75	<p>This section states, “This prototype shall be designed to integrate with the Total Learning Architecture (TLA) Reference Implementation located within the TLA Sandbox,…” Can you provide additional details on the requirements of this integration? Essentially, what would need to be added to the cmi5 player beyond the cmi5-specific requirements?</p>	<p>While TLA integration is mentioned within the solicitation, it is to align with ADL Initiative research. The requirements of IL4, Open Source, cmi5/xAPI, and being designed for use on an AWS or equivalent environment will adequately cover TLA integration efforts.</p>
76	<p>This section states, “This capability should be developed to best align with DoD’s Risk Management Framework (RMF) and should be targeted to run in an IL2 environment.” Can you define “best align with” in this sentence. Will the project be</p>	<p>While previously referred to as IL2, it is more likely IL4 will provide greater benefits. Please refer to IL4 requirements for all Cybersecurity/RMF, which should cover the "alignment" question. The prototype should be designed for achieving IL4 accreditation, but no accreditation steps are required from the vendor. Evaluation will be against the documentation and can be collaborated on during the design phase.</p>



Question #	Question	Answer
	evaluated against all relevant RMF controls? How do we verify that this requirement was met?	
77	This section states, "This prototype shall be designed to operate on the TLA Sandbox cloud environment operated by the ADL Initiative."	See Responses Below: Line 78, 79, 80.
78	a) Can you define requirements, beyond the testing requirements for the CTS that are required to operate on the TLA Sandbox cloud environment?	The CTS will not require integration with the TLA environment, but is required to be installed on a TLA Sandbox server for additional testing and evaluation. The cmi5 Player is required to be integrated into the TLA Reference Implementation.
79	b) Is the expectation that this will be the only authoritative source, installation of the CTS, provided as SAAS?	At this time, only 1 CTS instance will be capable of generating the validation certificates required by DoD acquisition policies.
80	c) Is the CTS expected to be easily configured to run on local environments (like a user's PC)?	Yes. In an ideal world, the CTS will be easily configured to run on local environments like a user's PC; however, the authoritative CTS capability will be server-based.

Question #	Question	Answer
81	<p>This section states, “It must also be able to run in a cybersecurity-accredited DoD environment as an independent deployment.” Does this imply that the prototype must adhere to any RMF or FedRAMP requirements as well as organizationally-specific security requirements? Is this in scope for this project or does the system need to be able to be modified as necessary to meet these requirements? How do we verify that this requirement was met?</p>	<p>There are no RMF or FedRamp accreditations required for this prototype project. Cybersecurity requirements should be identified in the RTVM as described in section 5.2.6. These requirements should be addressed in the System Architecture Report also described in section 5.2.6. Both artifacts will be reviewed by the government to ensure best practices are being followed to help maximize the probability of successfully architecting the solution in a way that meets RMF cybersecurity requirements. The scope of this effort intends to provide documentation that will enable follow-on accreditation efforts (either contracted or adopted by DOD).</p>
82	<p>This section states, “This testing should include software benchmarking as well as usability studies that are outlined in the T&amp;E Plan.” Are there particular benchmarking requirements from the client?</p>	<p>This statement was in reference to the Government Acceptance Testing that will take place once both prototypes are completed. Benchmarking will occur to help the government establish a baseline set of performance metrics to assist with testing and evaluation of the prototypes.</p>

Question #	Question	Answer
83	<p>This section states, “Documentation will be provided to support learning technology vendors seeking to have their products certified for delivering cmi5 conformant courses and also for course developers seeking to have their courses certified as cmi5 conformant.” Typically certification contains policy and procedures beyond assertion of conformance. Is it expected that this documentation describes the rules of a certification program (e.g. having a third party perform the test, testing N paths through content to fully exercise it, re-certifying systems after dot releases, etc.)?</p>	<p>No, it is not expected that this documentation describes the rules of a certification program (e.g. having a third party perform the test, testing N paths through content to fully exercise it, re-certifying systems after dot releases, etc.), but those lessons learned can be provided as "out of scope" or some section of the document that warns of this behavior. The documentation would have requirements only for the testable conformance aspects.</p>
84	<p>This section states, “Create cmi5 course templates that span the range of complexity from the simple conversion of a legacy SCORM course that is 100% browser-based to blended courses that utilize a wide range of different instructional activities.”</p>	<p>The content to be migrated to cmi5 is intended to show how some of the more common features or capabilities enabled by SCORM can be implemented in cmi5. Cmi5 does enable capabilities beyond what SCORM is capable of but building out those exemplars is beyond the scope of this effort. The ADL Initiative will work with the selected vendor to determine which courses will be migrated. Proposed solutions should define a strategy for what each template will focus on, as well as any constraints or limitations identified by the vendor</p>

Question #	Question	Answer
85	<p>Can you help define the range of expectations here? Some SCORM courses can be very complex and interactive. On the simple side, is this referring to a single SCO (or AU for cmi5) course? Can you provide additional information on the complex side requirements?</p>	<p>The content to be migrated to cmi5 is intended to show how some of the more common features or capabilities enabled by SCORM can be implemented in cmi5. Cmi5 does enable capabilities beyond what SCORM is capable of but building out those exemplars is beyond the scope of this effort. The ADL Initiative will work with the selected vendor to determine which courses will be migrated.</p>
86	<p>Section states, "As the cmi5 capabilities are deployed across the DoD, they will need to meet Federal requirements for 508 compliance. Section 508 Amendment to the Rehabilitation Act of 1973, as amended in 1998 requires Federal agencies to make their electronic and information technology accessible to people with disabilities (see <a href="https://section508.gov">https://section508.gov</a>)." Are there specific requirements for 508 on this project? When and what does this apply to in this project? This seems to be bound by "As the cmi5 capabilities are deployed</p>	<p>There are no additional 508 requirements for this project than for any other DoD software. The courses are templates and should consider such requirements, but as the content will be provided by the government, it is not likely that 508 modifications would be needed to that content, especially considering that applying the cmi5 specification doesn't change the visual aspect of the content.</p>

Question #	Question	Answer
	<p>across the DoD...” which appears to be a future requirement, after this project. Correct?</p>	
<p><b>87</b></p>	<p>Are the due dates set in stone? We would rather set these based on estimates of the work, created by the team if possible. In addition, we would like to propose some alternatives to this set of deliverables to be more inline with an agile project. Would these changes be potentially acceptable?</p>	<p>The due dates are guidelines and are not set in stone. The ideal solution will provide the basic capabilities of the conformance test suite and content player within the 12 month initial period.</p>
<p><b>88</b></p>	<p>This states that 10 templates are required but in the section above it says 5. Which is the accurate number of required templates?</p>	<p>5 are required. The reference to 10 is a mistake and will be revised in the amended RFS.</p>

Question #	Question	Answer
89	Is the CMI player a rough equivalent to the SCORM Sample Runtime Environment, or is it meant to operate within COTS/GOTS LMSs?	<p>It is a rough equivalent to the SCORM Sample Runtime Environment. The intended outcome is to provide the cmi5 player capability to other government organizations to allow them to deliver cmi5 courses.</p> <p>It is useful to consider 2 use cases for how the cmi5 player might be used -- a) individual user downloads and runs the cmi5 player locally (e.g., on their mobile device for a field trip activity), or b) an organization hosts the cmi5 player to support multiple users in the same way that an LMS is typically deployed.</p>
90	"Import, register, authorize", as described in section 2.2 of the RFS are not part of the CMI5 specification. Can you explain how the player should include these functionalities ?	The player must function as an LMS and have user accounts that register for courses and support a cmi5 package functionality.
91	Does this contract account for: 1) maintenance releases 2) help desk support 3) training (i.e., follow-on O&M).	It does not account for any of these - this is a prototyping project. The DoD may identify such requirements as part of a follow-on effort.
92	Should the CMI5 player support anything in addition to mobile, desktop and simulations? The CMI5 launch method in section 8.1 of the spec is very browser-dependent.	The supported launch mechanism is a requirement and would restrict content as mentioned. There is not a requirement to support environments outside of the browser; however, the government is open to ideas on how non-browser activities might launched.
93	The RFS mentions launch as a requirement for the player. Do you envision the player launching simulations?	The supported launch mechanism is a requirement and would restrict content as mentioned. There is not a requirement to support environments outside of the browser; however, the government is open to ideas on how non-browser activities might launched.
94	Are there any OCI issues if you have worked CMI5 standard in the past or are part of the working group?	No

Question #	Question	Answer
95	Can you expand upon what all is projected to be part of the "future learning ecosystem" mentioned in the Overview?	The future learning ecosystem is best described in the Modernizing Learning book published through the ADL Initiative in 2019 ( <a href="https://bookstore.gpo.gov/products/modernizing-learning-building-future-learning-ecosystem">https://bookstore.gpo.gov/products/modernizing-learning-building-future-learning-ecosystem</a> ).
96	Will contracted work on the test suite restrict a vendor from future ADL CMI5 efforts or other ADL contracts?	No.
97	QUESTION: Does the Government plan to exclude those vendors who currently have contracts or working relationship with the ADL - in an attempt to avoid what can be perceived as an obvious OCI scenario?	The Government has not provided any exclusion criteria and will fairly evaluate all proposed solution. Current contracts or working relationships shall not be the sole determinant of an OCI. If the vendor/contractor is currently working on an effort with ADL, that has similar or the same requirements, this may present an OCI.
98	The goal of this project is to help the DoD training and education community move away from legacy e-learning systems (i.e., SCORM-based and locked into browser-based LMS delivery) and instead move toward an integrated enterprise-wide learning ecosystem that (a) allows flexible delivery (e.g., content from outside an LMS or from different platforms) and (b) supports robust learning analytics. QUESTION: Can vendors	Vendors can suggest add-ons/options/features, but baseline functionality of the prototype in a timely delivery is part of the requirement.

Question #	Question	Answer
	<p>suggest "analytic solutions" even if out of scope of this prototype?</p>	
<p><b>99</b></p>	<p>the Government must be able to obtain an Assessment and Authorization (A&amp;A) when interfacing with the vendor solution in accordance with DoD Instruction 8510.01, RMF for DoD IT. QUESTION: Will the Government evaluate vendor's ability to comply with RMF and ability to place the PTS into an IL4 environment?</p>	<p>IL4 is a requirement. All evaluation criteria are referenced in Evaluation and Selection Process (Section 7).</p>
<p><b>100</b></p>	<p>open source cmi5 content player prototype. Can you specify the expected functionalities embedded in the content player please?</p>	<p>The entire playability of a cmi5 content package must be tested, this means it must support all aspects of a cmi5 session - import, registration, launch, etc. In this regard, it must function as a mini LMS. It is useful to consider three separate prototype end users - a) individual user that downloads and runs as a utility, b) an organization that installs / hosts software for multiple users, and c) a single-authoritative point of software, similar to how the ADL Initiative hosts the LRS Conformance Test Suite. The cmi5 Player must support a) and b). The cmi5 CTS for content must support a) and c) and the cmi5 CTS for systems (LMS/LRS) must support c) and can optionally support a). For the CTS, b) does not provide much value.</p>



Question #	Question	Answer
101	open source cmi5 content player prototype. Do you expect the player elements to have core features such as: Video Player, eCoursebook Player, Quiz Player, Lab Player, that can run independently or holistically or both?	Supporting many content types is not a primary function of the player and would be considered a feature. Cmi5 requirements demonstrate a course and LMS environment that the player should emulate.
102	Can the vendor work with and provide content samples relevant to DoD work they are currently performing?	To meet the course template deliverable, GFI will be provided in the form of five SCORM courses as GFI after award. They will not be overly complex. They will not be available in time for evaluation within the period of this RFS.
103	Does the Player actually need an LRS, or can it verify content to-and-from the LRS?	The Player will need to function without a cmi5 LRS and by connecting to an LRS. If vendors want to show creativity in how this works by having a validation service, that is acceptable.
104	What are the additional requirements for connecting to the TLA Test Environment?	The requirements for xAPI, cmi5, and IL4 in a sort of AWS environment will meet those requirements.
105	Can't we just develop a Desktop App? We don't see the reason for having Authentication.	The requirement is to have the capability to install the Player for multiple person use, including administration support. The Test Suite will need to be an authoritative installation, so an organization will control accounts, but individual vendors can create accounts that their test data and logs is kept private, but could be shared if desired.
106	What do we need to know about IL2/IL4?	The solution will need to be ready for is transition for DoD use. It may not be ADL that controls this eventually, particularly the Test Suite. It needs to be as DoD-ready as possible. IL4 is desired.

Question #	Question	Answer
107	Does the Player include an LRS?	Yes, mostly because there is no Open Source cmi5 conformant LRS
108	Must the player have the ability to link to an existing LRS?	Yes, because we want this to function in an environment where there IS a cmi5 conformant LRS, and because a "normal" LRS can blindly receive data for use in visualizations, etc.
109	What are the specific requirements, and which around TLA, for RMF/DoD Cybersecurity in regards to IL2, IL4, and AWS?	The DoD is setting up a defense-wide IL4 environment. We want this cmi5 player to be in an IL4 environment. We want documentation support. Intention - through artifacts that are delivered, you should address Cybersecurity requirements (IL4). We expect for the Player and will run it in Sandbox. Will work with USA Learning team to get it into the IL4 environment. Designed for achieving accreditation. Must adhere to, but not have to do accreditation partner. Verification will be based on documentation. Likely can collaborate during design phase. AWS - the OS will be replicated in Azure/AWS etc. basically a Stack requirement.
110	TLA integration is talked about - what is appropriate for the Player? For the CTS?	Open Source, IL4, and LRS integration requirements will cover the TLA integration. CTS requires none.
111	In regards to the Player, is the software for a) individual installation, b) organizational installation, c) one-single authoritative installation (can be multiple of a,b,c)?	a and b, but could certainly look at "shared" solutions, like a Sandbox.
112	In regards to the CTS, is the software for a) individual installation, b) organizational installation, c) one-single authoritative installation (can be multiple of a,b,c)?	Split into Content test suite and system test suite. Content is definitely a) and c). System test is c), with a) having value. b) for is each is a "nice to have", but doesn't provide as much utility as a).

Question #	Question	Answer
113	"RFS Response Instructions 6.1. The Government intends to make a single OT award as a result of the RFS." Does that mean that only one vendor submission is going to be awarded?	Yes.
114	Section 5.2.6 mentions importing from a "list of files". That is not a cmi5 feature, probably should be the cmi5.xml file.	All this is saying is that a package import can happen with the course structure format, which as you know, can link to local files or linked files.
115	In addition, Section 5.2.6 mentions "sequencing of content". That is not a cmi5 feature.	The cmi5 sequencing is basically "moveon" criteria, and the order that they show up in the course structure format. It doesn't imply any sort of advanced SCORM-like behavior.
116	Section 5.2.5 mentions "all verbs must be used by the templates". That conflicts with the specification: AUs may not issue a "waived", "launched" or "satisfied" statements.	All possible verbs does exclude the LMS issued verbs