

**Request for White Papers:
Persistent Cyber Training Environment (PCTE)
Cyber Innovation Challenge #2**

1.0 Purpose:

This Request for White Papers (RWP) is issued to seek vendors capable of fulfilling the technology objective outlined below related to enabling user access to the Persistent Cyber Training Environment (PCTE) and training resources through an order portal, as well as the establishment and operation of a content repository.

2.0 Summary:

PCTE is intended to solve Department of Defense (DoD) gaps that include the capability to effectively plan, build and conduct Cyber Mission Force (CMF) training. Currently, CMF training scenarios are manually deployed on a variety of cyber range resources with varying capabilities that lack fidelity, interoperability, reusability and cannot scale to support projected CMF demands. To close this training shortfall, DoD requires a persistent cyberspace training environment that can rapidly deploy and redeploy high fidelity training scenarios, on demand, into specific environments to meet the needs of the CMF. PCTE will enable the CMF to conduct training, exercises and mission rehearsals for the full spectrum of Cyberspace Operations.

PCTE deploys prototype capabilities through competitive Cyber Innovation Challenges (CICs) to the field consisting of capabilities including event management, environment creation/replication, and connections into to the Services' Crew Training Facilities. With continued evaluation of the CIC prototypes by Cyber Mission Forces (CMF) personnel, the PCTE platform will continue to evolve based on changes to technology, threat, and tactics, techniques and procedures (TTPs).

Cyber Innovation Challenge 2 is being issued to investigate prototype solutions specifically in the area of an order portal and content repository. The intent of the challenge is to evaluate the technical feasibility of integrating these capabilities into a PCTE baseline training solution.

2.1 Vendors interested in responding to this Request for Solutions must be members of the Training and Readiness Accelerator (TReX).

2.2 Intellectual Property and Rights in Technical Data: Intellectual Property is to be negotiated based on the offeror's proposed solution.

The Government desire is to receive government purpose rights to all development and deliverables of technical data funded by the Government under the agreement. The Government may require sufficient data and documentation be delivered with the prototype to allow Government and support staff to operate and maintain the system,

however, depending on the current capability of vendor solutions current commercial items – which market research indicates exist to a significant extent in this domain – the PCTE program office cannot fully define the requirement for technical data at this time. All vendors should provide the details of their unique data rights and intellectual property up front in order for the Government to properly weigh long-term risk.

The definitions for rights in technical data and computer software under this effort shall be the same as utilized in the Defense Federal Acquisition Regulations clause 252.227-7013(a), dated FEB 2014.

3.0 CIC 2 Focus:

PCTE is seeking the development and demonstration of training capabilities to allow members of the Cyber Mission Force to efficiently order and schedule cyber training services and provide a platform that leverages new, innovative methods for accessing learning aids and the development and hosting of training content. The platform provides a learning ecosystem that enables individuals to gather virtually in an innovative and collaborative environment to share knowledge, develop new concepts, think critically, and discover new knowledge.

Cyber Innovation Challenge 2 focuses on enabling user access to the PCTE and training aids through an order portal, as well as the establishment and operation of a content repository.

The portal capability should include a web-enabled user interface to conduct authentication, authorization and accounting based on user credentials, configure training, order training, schedule training, access training, and facilitate the production and distribution of user training assessments at the conclusion of the training event. This should allow authorized users to access the content repository to view existing training scenarios. In addition to the training managers and training audience using the order portal, it will allow the content repository to be accessed by CMF trainees, event designers and event managers. This should allow the creation, modification and deletion of training content as well as collaboration, searching and indexing content.

These capabilities require the ability to operate and support multiple concurrent training events simultaneously in a closed environment at multiple classification levels which should be shown by demonstrating the capability to segregate data according to simulated classification levels. These capabilities will be integrated within the PCTE development operations (Devops) environment.

A content library shall provide a central repository of all certified and relevant training content (course curriculum, scenarios, vignettes, and planning guides), data and metadata used to develop a training event, and the ability to host and bring into use virtual or live tools that the CMF would use during training. It is expected that the order portal and content repository provide non-proprietary interface standards and ability to interface with other components of the PCTE system.

4.0 Use Cases: Please see RWP Attachment 1, CIC 2 Use Cases.

5.0 White Paper Responses:

5.1 Capability/Concept Solutions: White Paper responses shall be structured in a two-part Capability/Concept response. The first part will require a vendor to propose what their current demonstratable *capability* is to date – with the second part providing their *concept* for what they believe they can achieve, if further funded. Vendors shall provide anticipated delivery schedules for any concept that is not currently available today.

Ensure that you state all assumptions made during development of your responses.

5.2 Intellectual Property and Rights in Technical Data: As outlined in paragraph 2.2 above, all IP and data rights remain negotiable based on individual vendor solutions. While the Government has expressed their desire, vendors are not limited to proposing solutions which adhere only to that desire. Your response should clearly outline the appropriate rights in technical data that will be delivered with your solutions, as well as a list of any third-party software/hardware to be delivered; in addition to any required overhead/recurring costs of the use of that software/hardware.

5.3 Proposed Pricing and Milestones: Vendors should submit fixed amount pricing with their solution, with payments occurring at clearly definable, detailed milestones (if necessary). Also, please list all commercial licenses (and associated cost) required for the operation of the proposed solutions.

5.4 Provide your nontraditional* business status or your ability to meet the eligibility requirements in 10 U.S. Code § 2371b on the cover page of your response. Within your response, please check the following box which applies – with appropriate justification if applicable.

- There is at least one nontraditional defense contractor or nonprofit research institution participating to a significant extent in the project.
- All significant participants in the transaction other than the Federal Government are small businesses or nontraditional defense contractors.
- At least one third of the total cost of the project is to be provided by sources other than the Federal Government.

*Nontraditional – an entity that is not currently performing and has not performed, for at least the one-year period preceding the solicitation of sources by the Department of Defense (DoD) for the procurement or transaction, any contract or subcontract for the DoD that is subject to full coverage under the cost accounting

standards prescribed pursuant to section 1502 of title 41 and the regulations implementing such section.

5.5 In addition to your nontraditional business status, the cover page of the response shall also include the company name, Commercial and Government Entity (CAGE) Code (if available), address, and primary point of contact including phone number and email address. The cover page does not count towards page count.

5.6 All questions related to this RFS should be submitted in writing to initiatives@nstxl.org, with "PCTE – CIC2" used in the subject line. Note: the Government reserves the right to post submitted questions and answers, as necessary (and appropriate) to facilitate vendor solution responses.

5.7 Responses shall be submitted no later than **12:00 PM EST on February 23, 2018**. Your response should be submitted electronically to initiatives@nstxl.org, with "PCTE – CIC2" used in the subject line.

5.8 Responses shall not exceed **five** pages in length, utilizing standard 12-point font. Any charts or figures are not bound by the 12-point font requirement.

6.0 Vendor Selection Process:

6.1 After receipt of submissions from TReX members, the Government will complete their initial evaluations with consideration given to the technical merit of the response, current capability, feasibility of implementation, cost to operate, and total project risk. The proposed project price, delivery schedule, and data rights assertions will be considered as aspects of the entire response when weighing risk and reward.

The considerations listed above are not listed in any specific order of priority and responses will be considered as a whole. Comparative analysis of submissions is allowed.

6.2 After initial evaluation, the Government will conduct a down select to the pool of vendors with the most technically feasible solutions to hold demonstrations of the capability proposed. Demonstrations are currently estimated to be held in late-March/early-April 2018. Based on outcome of the demonstration, the Government will collaborate with the best vendor(s) to finalize any unique requirements and terms and conditions necessary before final award and selection is made.

6.3 The Government reserves the right to hold in-depth discussion with individual vendors throughout the Challenge to ascertain capability and potential of submissions.

6.4 The Government may issue more than one OTA under this announcement.

6.5 Evaluations will be conducted by a pool of subject matter experts, which will include contracted support personnel from the following companies: COLSA

Corporation, Phase II Staffing and Contracting, John Hopkins University, MITRE, Optimal Solutions Technologies (OST), and University of Central Florida. Personnel receiving access to this information will be limited to an as-needed basis and all individuals will be required to sign non-disclosure agreements prior to receiving access – the companies themselves have been restricted from any current or future PCTE opportunities.

7.0 Anticipated Nature of the Agreement

The nature of the agreement will be heavily influenced by individual solutions proposed. However, it is the Government's intent for the OTA(s) issued to be of a fixed amount, with clearly definable milestones. The agreement will provide a mutually beneficial plan between Government and vendor to deliver the capability outlined within the vendor's solution.

8.0 Additional Information

8.1 The costs of preparing and submitting a response is not considered an allowable direct charge to any contract or agreement.

8.2 Export controls: research findings and technology developments arising from the resulting White Paper may constitute a significant enhancement to the national defense and to the economic vitality of the United States. As such, in the conduct of all work related to this effort, the recipient will comply strictly with the International Traffic in Arms Regulation (22 C.F.R. §§ 120-130), the National Industrial Security Program Operating Manual (DoD 5220.22-M) and the Department of Commerce Export Regulation (15 C.F.R. §§ 730-774).

8.3 All submissions shall be unclassified. Submissions containing data that is not to be disclosed to the public for any purpose or used by the Government except for evaluation purposes shall include the following sentences on the cover page:

“This submission includes data that shall not be disclosed outside the Government, except to non-Government personnel for evaluation purposes, and shall not be duplicated, used, or disclosed -- in whole or in part -- for any purpose other than to evaluate this submission. If, however, an agreement is awarded to this Company as a result of -- or in connection with -- the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent agreed upon by both parties in the resulting agreement. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in sheets [insert numbers or other identification of sheets]”

8.4 Each restricted data sheet should be marked as follows:

“Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this submission.”

8.5 The Agreements Officer for this effort is Mr. Brian Serra. He can be reached at brian.d.serra.civ@mail.mil or 407-208-3357.