

Request for Solutions (RFS)
Immersive Training Environment (ITE) Prototype Project
19 July 2021

1. Purpose and Authority

This Request for Solutions (RFS) is seeking vendors for an Other Transaction Authority (OTA) agreement, for the Immersive Training Environment (ITE) Prototype Project. The Government will evaluate the solutions with the intent to competitively award one or multiple Other Transaction (OT) Agreements for prototype projects through the Training and Readiness Accelerator (TReX) vehicle, in accordance with 10 U.S. Code § 2371b.

2. Summary and Background

Since 2007, the United States Marine Corps (USMC) has been utilizing Infantry Immersion Trainers (IITs). While these systems provide adequate training for their intended purpose, there are training scenarios within the IITs that require the employment of Role Players. Upon analysis of these scenarios, the USMC believes there are instances where these hired actors or Role Players can be replaced by computer generated entities while still providing valuable and essential training. The USMC would like to issue an OTA Prototype Project for an Immersive Training Environment (ITE) capable of supporting an innovative solution that would either reduce or eliminate the use of these Role Players in various training scenarios.

The IIT currently provides high-fidelity fixed immersive training environments with enhanced battlefield realism including exposure to operational complexities, mental and physical stresses, and challenging ethical decision-making. The IITs also provide realistic training with Role Player Support Services. This training requires the employment of Role Players to serve as Foreign Language Specialists, Civilians on the Battlefield (with linguistic and cultural accuracy or background), general Role Players who would fill the role of insurgents, terrorists, embedded foreign command staff/military/police units and other personnel encountered in the intended theater of operations. However, there are times when human Role Players may not be available.

The USMC is seeking ITE capabilities designed to meet contemporary and future training requirements that adapt as changes occur in the operational environment with hardware and software Computer Generated Forces (CGF) technology that will enable the USMC infantry team leader to reinforce decision-making skills and After Action Reporting for Commanders. The CGF should be able to create high fidelity simulations primarily Shoot no Shoot scenarios with the purpose to train Marines for

the ever-changing realities of the 21st century. The CGF will provide the building blocks for creating tactical simulations requiring more than one entity.

The CGF should meet Live, Virtual and Constructive objectives:

- Live - A simulation involving real people operating real systems. Military training events using real equipment are live simulations. Considered simulations because are not conducted against a live enemy.
- Virtual - A simulation involving real people operating simulated systems. Virtual simulations inject a Human-in-the-Loop into a central role by exercising motor control skills (for example: flying jet or tank simulator), decision-making skills (for example: Shoot no Shoot, committing fire control resources to action), or communication skills (for example, as members of a Marine Corps Special Operations Command team).
- Constructive - A simulation involving simulated people operating simulated systems. Real people enhance such simulations but are not involved in determining the outcomes. A constructive simulation will be a computer program. For example, a military user may input data instructing a unit to move and to engage an enemy target. The constructive simulation determines the speed of movement, the effect of the engagement with the enemy and any battle damage that may occur. These terms are not be confused with specific constructive models such as CGF, a generic term used to refer to computer representations of forces in simulations that attempts to model human behavior and human/systems interactions.

The CGF is one of the Family of Systems (FoS) that provides realism within the ITE. This feature is a Key Performance Parameter (KPP) for the ITE. CGF allows units to conduct essential tasks in a replicated contemporary operating environment. A realistic environment sets the conditions to create both tactical and ethical dilemmas for the Marines. The development of a realistic environment (live, augmented or virtual) and associated scenarios are integral to the successful creation of an ITE.

This prototype project is unclassified.

3. General Information

3.1. Vendors interested in responding to this RFS must be members of the Training and Readiness Accelerator (TReX). Information about membership can be found at the following webpage: <https://nstxl.org/membership/>

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

3.3. An individual vendor may not submit more than one solution in response to this RFS as a Prime. A vendor may participate as a subcontractor to multiple responses. Additionally, the Government will consider and accept partial solutions for this requirement.

3.4. Non-compliance with the submission instructions provided herein may preclude the vendor from being considered for award.

3.5. Government participants and advisors, both Government and Contractor personnel, in the evaluation process and will be required to sign non-disclosure agreements (NDAs), as well as ensuring the procedures are in accordance with 41 U.S.C. 423, Procurement Integrity Act.

3.5.1. Advising Contractor Support Staff: Alaka'ina Foundation Family of Companies, 12565 Research Parkway, Orlando FL 32826; CAGE Code 4C108.

4. Government Furnished Information (GFI)/ Government Furnished Property (GFP)

4.1. The Government will make immediately available, upon RFS release, the Attachments listed in Section 10, for use during solution preparation.

4.2. All hardware and associated technical information provided to the vendor as GFI/Government Furnished Equipment (GFE) is anticipated to be Controlled Unclassified Information (CUI).

4.3. Upon award of the project, the Government anticipates the distribution of Controlled Unclassified Information (CUI) related to the ITE effort as Distribution D. The Government anticipates this project to be classified at the UNCLASSIFIED level. All hardware and associated technical information provided to the vendor as GFI/Government Furnished Equipment (GFE) is anticipated to be Controlled Unclassified Information (CUI).

The Government will provide the vendor with Security Classification Guides (SCGs) related to the technology developed under the ITE effort, to ensure that classified information is not inadvertently created by the vendor during execution of the project. Please refer to the following link for more information on SCGs:

https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodm/520001m_vol1.pdf?ver=2020-08-04-092500-203

The Government intends to provide additional GFI to the awardee within 15 days after award of agreement.

4.3.1. Vendor Vetting: The vendor is required to complete and submit, with their solution, the Vendor Self Vetting Form (Attachment 08) along with completing and signing the GFI Tech Data Distribution Agreement (Attachment 07) which includes further guidance regarding the handling and safeguarding of any Controlled Unclassified Information (CUI) related to the ITE effort as Distribution D.

4.4. Furthermore, vendors must provide a list of all Government Furnished Information (GFI) / Government Furnished Equipment (GFE) that the vendor believes is critical to enable development and demonstration of prototype. The Government cannot guarantee that all GFI / GFE requests can/will be accommodated.

5. Solutions Paper Responses

5.1. Solution Paper responses shall consist of one volume to include an Administrative, Technical, and Price section. Responses shall be submitted in an editable/executable (not scanned) Word/Adobe PDF format. The Technical section is limited to no more than 10 standard size (8 ½" X 11") pages for the total volume count using standard 12-point Arial font. No more than 3 foldouts are allowed with a page size of 11"x17" and will be counted towards the 10-page limit. Please note, each one-sided page will count towards the page count limit. Charts or figures are not bound by the 12-point font requirement but shall be clearly legible. If the solution exceeds the page limitation, the Government may choose not to read any information exceeding the 10-page limit and the information may not be included in the solution evaluation.

| Section | Subsection | Format** | Counted towards page limit | | Page Limit* |
|-----------|--|-------------|----------------------------|----|---------------|
| | | | Yes | No | |
| General | Cover Page | MS Word/PDF | | X | No Page Limit |
| | Nontraditional Status | MS Word/PDF | | X | |
| | FOCI Status | MS Word/PDF | | X | |
| | OCI & Mitigation Plan | MS Word/PDF | | X | |
| Technical | Sub-Vendor List | MS Word/PDF | | X | 10-Page Limit |
| | Vendor Experience | MS Word/PDF | X | | |
| | Project Management | MS Word/PDF | X | | |
| | Solution Paper | MS Word/PDF | X | | |
| | Technical Approach | MS Word/PDF | X | | |
| | Govt Desired Rights in Tech Data & Computer SW | MS Word/PDF | | X | |

| | | | | | |
|--------------|--------------------------------|----------------|--|---|---------------|
| | Anticipated Delivery Schedule | MS Word/PDF | | X | |
| | Schedule (IMS) | MS Project/PDF | | X | |
| Price | Pricing Breakout | Excel | | X | No Page Limit |
| | Rough Order of Magnitude (ROM) | Excel | | X | |

***The Administrative and Pricing Sections along with the cover pages Sub-Vendor List, Government Desired Rights in Technical Data and Computer Software, List of Figures, Integrated Master Schedule (IMS), Delivery Schedule, GFI List, Section 889-Telecommunications and Representations, and Acronym Definitions do not count towards the page count limit.**

**** All PDF's will be editable (not locked).**

5.2. Administrative Section (unlimited page count)

The following shall be included in the Administrative Section:

- Cover Page
- Nontraditional status
- Foreign Owned, Controlled or Influenced (FOCI) status
- Organizational Conflicts of Interest and Mitigation Plans

5.2.1. Cover Page

The cover page shall include the vendor's name, Commercial and Government Entity (CAGE) Code (if available), NAICS Code, Business Size, Traditional or Non-Traditional status, address, primary point of contact, and status of U.S. ownership. NAICS code for this effort is 541330.

5.2.2 Nontraditional Status

The vendor shall provide its nontraditional (see paragraph 5.2.2.1 for definition) business status or its ability to meet the eligibility requirements of 10 U.S.C. §2371b. The vendor shall check one of the following boxes – with appropriate justification if needed.

- There is at least one nontraditional defense contractor or nonprofit research institution participation 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.

If the vendor is not a nontraditional defense contractor (NDC) additional information is needed. Vendor shall provide the name and CAGE code information for the NDC participating in the prototype project. Additionally, the vendor shall provide what portion of the work the NDC is performing and an explanation of the significance of the NDC's contribution to the prototype project.

5.2.2.1 Definition of Nontraditional Defense Contractor – an entity that is not currently performing and has not performed, for at least 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 41 U.S.C §1502 and the regulations implementing such section.

5.2.3 Foreign Ownership, Control, or Interest (FOCI) Status

In accordance with RFS Attachment 2, Security Process for Vetting Contractors, the vendor must include certification that the vendor (and subcontractor(s)) are not Foreign Owned or under USA FOCI status (and are not in merger or purchasing discussions for a Foreign company or USA FOCI Company). Should a prospective vendor be unable to so certify, they will be ineligible for award unless the mitigating circumstances in Attachment 2 Security Process for Vetting Contractors are met. In such a case, these mitigating circumstances shall be detailed in an appendix to the Administrative Section.

5.2.4 Organizational Conflicts of Interest and Mitigation Plan

Vendors will submit an Organizational Conflict of Interest (OCI) Mitigation Plan via an appendix to the General Volume. In the event there are no real or perceived OCIs, simply state so and annotate what actions would be taken in the event that one is realized.

5.3. Technical Section (10-page count)

The following shall be included within the Technical Section:

- Sub-Vendor List
- Vendor Experience
- Project Management
- Solution Paper
- Technical Approach
- Government Desired Rights in Technical Data and Computer Software
- Anticipated Delivery Schedule
- Integrated Master Schedule (IMS)

5.3.1. Sub-Vendor List

Vendor shall provide a list of all sub-vendors involved and their role within the performance of your submission as an appendix (which will not count towards the page count). The list shall include FOCl status and OCI.

5.3.2. Vendor Experience

Vendor shall describe their company or team's, recent and relevant previous experiences developing and deploying an e-learning system similar to the required work of this prototype project. Projects worked in the last three years are considered recent.

5.3.3. Project Management

Vendor shall describe their company's methodologies, organizational structure, quality assurance processes, and staffing they intend to use to manage this prototype project.

5.3.4. Solution Paper

Solution Paper responses shall include the vendor's proposed technical solution clearly describing the approach, feasibility and technical risks and mitigation solutions identified in fulfilling the Project Technical Objectives and associated deliverables identified below. The approach shall clearly address planned documentation deliverables (including format and content) and any planned demonstrations, design reviews (including product line quality factors such as agility and reuse), feasibility of implementation, total project risk, and management reviews.

5.3.5. Technical Objectives of the Program

The PM TRASYS ITE prototype project goal is to design, develop, test, and potentially field a successfully completed CGF capability prototype. The ITE anticipates a materiel solution that has the ability to support hands-on small unit practical training in immersive realistic and complex scenario-based training environments. The following information is intended to support vendor solution responses that will support Marine Corps Systems Command's desire for a successfully completed CGF capability prototype. If necessary, and dependent upon solutions received, the Government may determine to implement an Initial Operating Capability (IOC) milestone. If implemented, the IOC will be considered a baseline allowing the vendor to further mature the technology and materiel solution.

The ITE prototype project has a primary goal to replace up to 15 live actors where appropriate. The ITE seeks solutions enabling CGF to support culturally diverse training scenarios, generate these scenarios through a scenario generator, and provide an After Action Review (AAR). These CGF will replace the traditional actor(s) in real-world scenarios for both individual and collective training. This training will need to cover an array of requirements to include decision-making and judgement, rules of engagement, building entry, and room navigation and clearing.

All training will need to be able to be conducted in realistic, culturally appropriate settings and executed in both day and night along with an array of weather conditions. The ITE system will also be required to support certain performance criteria further identified in the Technical Supplement, Attachment 01. PM TRASYS is open to additional ideas and approaches. However, all solutions must, at a minimum meet and support system performance for real-time training standards such as 1080p at 30 frames per second (fps). The ITE is intended to be able to be used at any deployment site and must be able to project onto solid surfaces.

For the ITE to deliver high-performance, real-time, realistic training, there are minimum requirements that must be met in the near-term. Each incremental delivery cycle will include several phases as defined in the RFS. Each cycle will include design, development, and test phases where some cycles and/or phases will require fielding and delivery for user tests and feedback. Vendors will propose cycles with appropriate phases for incremental prototype capability deliveries and testing that include milestones attached to payment plans.

It is Government's intent to support an iterative approach towards attaining the following required objectives:

Operational System Objectives:

- Provide participants with realistic battlefield audio and visual cues for weapon effects, atmospherics and CGF
- Virtually demonstrate adaptable environment to support operations across Range of Military Operations
- Allow Marine Corps Ranges to fully support pre-deployment training cycles in anticipation of operational deployments
- Provide high-end training venues that replicate modern battlefields for realistic controlled training exposure
- Provide simulation-based models (for example: projection, augmented reality, holographic or other) to impact human senses for combat immersion
- Allow the ability to adjust training levels in varying degrees of competence and complexity for the benefit of training units
- Administer the ability to track, model and simulate interactive environments for participants
- Interface with existing AAR capabilities
- Ability to create and control training scenarios for training application purposes
- Provide a training environment with realistic battlefield terrain for multidisciplinary user interaction
- Adaptable to support application of kinetic and non-kinetic responses in combat simulation

- Flexible in rendering three-dimensional (3D) computer generated images in accordance to program mission (for example: projecting on walls, augmented reality)
- Respond based on “free-play” with the use of artificial intelligence

Functional System Objectives:

- Compliance with MIL-STD 810H and in accordance with environmental standards using National Electrical Manufacturers Association (NEMA) box
- Connect to the main server to allow user to access machines from workstations
- Display 3D CGF images on walls of artificial mock village for immersive training
- Provide functionality to fire Special Effects Small Arms Making System (SESAMS) rounds at images for trainees to test decision-making skills
- Account for laser tracker for capturing laser shots by user to determine if “Friendly/Foe” was hit or missed
- Allow the image generating machines to be controlled from an array of instructor stations from AAR and/or control node
- Ability to play sounds produced by software to create the most realistic training environment
- Integrate Instrumented-Tactical Engagement Simulation System (I-TESS)/ Force on Force Training System Next (FoFTS-Next) configuration devices for re-configuration of Small Arms Transmitters (SATs) with reduced Multiple Integrated Laser Engagement System (MILES) and Urban Combat Advanced Training Technology (UCATT) Laser Engagement Interface Standard (ULEIS) codes
- Compliance with existing I-TESS/FoFTS-Next Marine Corps configuration devices (M4, M16, and M249 Squad Automatic Weapon (SAW), etc.)

These requirements also include the need for scenario generation and AAR capabilities.

5.3.6. Scenario

The ITE requires a scenario generation capability (SGC) to support end-user scenario development and deployment at the point of need. The scenario generator must be able to provide an array of CGF entities and environments to capture the real-world training described throughout this document. The SGC must take into account the realistic nature required for these training requirements to include political, military, economic, social, information, infrastructure, physical environment, and time variables such as entity movements, behavior, demeanors, character activity matching the environment and cultural nature of the training environment, armaments, ethnicities (skin tone and dress), age ranges (infant through adult),

gender (male and female), and the ability to speak in language and dialect appropriate for the training scenario.

5.3.7. AAR

The ITE AAR is intended to provide effective, actionable feedback to the trainee(s). The AAR must provide a variety of data points and metrics surrounding the events within the training scenario. The AAR will support instrumented training feedback to include individual and collective feedback to include but not limited to video and sound capture and playback.

As outlined in Section 7, the PM TRASYS team requires each vendor to submit an integrated master schedule (IMS) that includes a schedule identifying long-lead items. PM TRASYS also expects the IMS to reflect spiral development milestones where each milestone has a tangible outcome to include designs and demonstrations.

5.3.8. Prototype Approach

The Government estimates the total period of performance will be 36 months from the date of award. Vendors shall include its anticipated delivery schedule to reflect its individual solutions.

The delivery timeframe is estimated to be divided among the five (5) following phases:

Phase 1: Design

The Design Phase is intended to focus on the vendor's proposed solution of technical and functional requirements and the results of thorough analysis of the software and hardware viability.

Phase 1 Technical Objectives: Basic principles of technology readiness including written studies. The Design Phase will discuss the integration of sub-systems and technology insertion to accomplish the objectives of CGF.

Phase 1 Expected Outcome: White paper with complete system design that includes all of the CGF technical objectives.

Phase 1 Decision Point (DP): Based upon the results of Phase 1, the Government may or may not determine to enter into Phase 2. The specific DP criteria will be defined during SOW collaboration.

Phase 2: Prototype Development

The Prototype Development Phase is intended to focus on the physical manifestation of the white paper from Phase 1.

Phase 2 Technical Objectives: Component or application formulated. Prototype is realized and matured from a white paper to a physical prototype system.

Phase 2 Expected Outcome: Basic technological hardware/software components of CGF are integrated in an operational environment to establish that they will work together and meet training objectives for the CGF. Deliverable is a system (TRL 6 minimum, as referenced in Attachment 1) to demonstrate the solution described in the white paper from Phase 1.

Phase 2 Decision Point: At the end of Phase 2, the Government may or may not determine to enter into Phase 3, based on whether or not the demonstrated solution is at least TRL 6. The specific DP criteria will be defined during SOW collaboration.

Phase 3: User Assessment

The User Assessment Phase is intended to focus on assessing the prototype(s) solution(s) from Phase 2. The system will be deployed for use at MCB Camp Pendleton, CA and MCB Camp Lejeune, NC to collect operational feedback.

Phase 3 Technical Objective: Collect user feedback on the prototype at MCB Camp Pendleton, CA and MCB Camp Lejeune, NC.

Phase 3 Expected Outcome: The User Assessment will be conducted at the Indoor and Outdoor Infantry Immersion Trainer for operational environment. Deliverable is system completion and qualification through test/demonstration.

Phase 3 Decision Point: Based upon the results of Phase 3, the Government will determine if the prototype has reached an acceptable maturity level based on evaluator feedback collected from users. The acceptable maturity level and exit criteria will be defined during SOW collaboration.

Phase 4: Increment 2 Development

This phase is intended to incorporate feedback received in Phase 3 and to continue to mature the technology to reach a level of TRL 8.

Phase 4 Technical Objectives: Mature solution to TRL 8. Incorporate user feedback from Phase 3.

Phase 4 Expected Outcome: Deliverable is a system (TRL 8 minimum) to demonstrate the ruggedized CGF.

Phase 4 Decision Point: At the end of Phase 4, the Government may or may not determine to enter into Phase 5, based on whether or not the demonstrated solution is at least TRL 8. The specific DP criteria will be defined during SOW collaboration.

Phase 5: User Assessment 2

The User Assessment 2 Phase is intended to focus on a second assessment on the outcome of Phase 4.

Phase 5 Technical Objective: Collect user feedback on the prototype at MCB Camp Pendleton, CA and MCB Camp Lejeune, NC.

Phase 5 Expected Outcome: The User Assessment will be conducted at the Indoor and Outdoor Infantry Immersion Trainer for operational environment. Deliverable is system completion and qualification through test/demonstration.

Phase 5 Decision Point: Based upon the results of Phase 5 the Government will determine if the prototype has reached an acceptable maturity level and evaluate feedback collected from users to determine if the prototype should go into production. The acceptable maturity level and exit criteria are conditional and will be further defined during the SOW collaboration.

5.4 Government Desired Rights in Technical Data and Computer Software

5.4.1 The Government requires Government Purpose Rights (GPR) in all technical data (including computer software documentation) and computer software developed under any OT awarded pursuant to the RFS, for, at least, a five-year period. The five-year period, or such other period as may be negotiated, will commence upon execution of the OT that required development of the technical data (including computer software documentation) and computer software. Upon expiration of the five-year (or other negotiated period), the Government desires unlimited rights in the technical data (including computer software documentation) and computer software. Printed deliverable (e.g., printed hardcopies, .doc, web-based html, etc.) will be labeled accordingly and contain all appropriate markings associated with the distribution classification.

All technical data, intellectual property and non-commercial off the shelf (non-COTS) software are desired to be provided with a minimum of GPR.

Any commercial or COTS shall be provided with a transferable license that allows distribution of the software and transfer of the license to any government agency or DoD vendor for any ITE prototype project related purpose. All software licensing shall include a minimum term of five years of use. All software shall be provided with any available major upgrades, minor updates, security patches and technical

support for the entire period of performance. When the addition of new software or hardware is proposed for the system or developed under this agreement with government funding or partial government funding, the vendor shall ensure that sufficient rights in technical data to include software and hardware are procured to enable the government to maintain and modify the system using government personnel and/or third-party vendors. Government approval is required for exceptions to GPR.

In its proposal, the vendor for any OT awarded in accordance with this RFS shall analyze feasible non-proprietary solutions and incorporate such solutions into its proposed solution when practicable. This preference for non-proprietary solutions applies to any technical data (including computer software documentation) and computer software developed or delivered under the OT. The vendor shall clearly state all assumptions made during development of its proposal.

The vendor shall provide a data rights assertion table, Attachment 04, for all technical data (including computer software documentation) and computer software to be developed or delivered under the OTA. The data rights assertion table shall identify at the lowest segregable level the technical data (including computer software documentation) and computer software to be developed or delivered under the OT, the vendor's assertion as to the government's rights in each item of technical data (including computer software documentation) and computer software, the basis for such assertion, and the name of the person asserting any restrictions.

For any technical data (including computer software documentation) or computer software in which the vendor asserts the Government will have less than Government purpose rights, the vendor shall provide the open source, commercial, or other license it asserts is applicable. The vendor's assertions, including any assertions of its sub-vendors or suppliers must be submitted as an attachment to its Solution Paper. The tables must be completed in the format set forth in the attachment, dated and signed by an official authorized to contractually obligate the vendor. If additional space is necessary, additional pages may be included. There is no page limit for the Data Rights Assertions Tables, and they do not count against the proposed technical solution page limitation.

All technical data and information developed under this effort should be marked with the appropriate marking in accordance with DoDI 5320.24, Distribution Statements on Technical Documents. This generally should be marked with "DISTRIBUTION STATEMENT D. Distribution authorized to the Department of Defense and U.S. DoD contractors only (fill in) (14 May 2021). Other requests shall be referred to PEO STRI."

5.4.2 For the purposes of this RFS and final award document, the Government will use the data rights and computer software related terms defined in Attachment 5, Data Rights License Terms Definitions.

5.4.3 Vendor shall complete the Data Rights Assertions Tables using the format provided in Attachment 04, Data Rights Assertions Tables. The vendor's assertions, including any assertions of its subcontractors or suppliers must be submitted as an attachment to its Solution Paper. The tables must be completed in the format set forth in the attachment, dated and signed by an official authorized to contractually obligate the vendor. If additional space is necessary, additional pages may be included. There is no page limit for the Data Rights Assertions Tables, and they do not count against the proposed technical solution page limitation.

5.4.4 Anticipated Delivery Schedule

The vendor shall include the anticipated delivery dates with their solution that includes all ITE Prototype capabilities and completion dates for all tasks and task stages as described in the RFS.

5.4.5 Integrated Master Schedule (IMS)

An IMS shall be provided, using Microsoft Project. The IMS should be resource loaded with each task including a predecessor (if applicable). The IMS may be attached as an appendix file. The IMS is not included in the total page count and page count is unlimited.

5.5 Pricing Section (unlimited page count)

The following shall be included within the Pricing Section:

- Pricing Breakout
- Rough Order of Magnitude (ROM)

5.5.1 Pricing Breakout

Vendors shall submit a fixed price amount price for its solution, further divided into severable milestones. The Government is not dictating a specific price mechanism. However, proposed payments should be linked to clearly definable, detailed milestones in each phase. It should be clear, with sufficient detail, what is being delivered at each milestone. The vendor's pricing milestones may vary from the defined decision points, depending on the proposed solution. Milestones should be established and priced in a manner that prohibits milestone efforts from being worked concurrently. Each milestone price should reflect the anticipated value the Government will receive toward accomplishment of the OTA goals and objectives at the time the milestone is completed. The price volume has no page number limitation.

The prototype project will be incrementally funded as funding becomes available. The government may not fund the full value of this agreement based on the outcome of the various demonstrations conducted throughout the period of performance.

5.5.2 Rough Order of Magnitude (ROM)

Vendors shall provide a ROM for potential follow-on production activities as described in Section 9: Follow-on Production, to include the following:

Describe your licensing/pricing model(s) and include a high-level ROM for your described solution's recurring and non-recurring costs (e.g., installation/set-up, initial training, sustainment costs, upgrade costs and other associated/ add-on services) for a Production/Maintenance environment. (Must provide an expected quantity to support the ROM)

Vendors shall clearly identify any anticipated sustainment/maintenance costs and risks for its solution. In the Technical Volume, Vendors should identify technical approaches and rationale within its proposed solution that will result in sustainment cost savings for the government. Sustainment cost savings from the technical approaches shall be quantified and provided.

(Any additional conditions you want to include as part of your ROM pricing.)

Please note, the Follow-On ROM, as well as the sustainment costs, will assist in future planning efforts for potential follow-on efforts and will **NOT** be part of the evaluation.

6. RFS Response Instructions

6.1 The Government intends to make a single OT award as a result of this RFS. However, more than one award may be made if determined to be in the Government's best interest.

6.2 All questions related to this RFS shall be submitted utilizing the Vendor Questions Form provided in Attachment 3. Questions must be submitted via email to initiatives@nstxl.org, with "ITE Prototype Vendor Questions" in the subject line.

6.3 **Questions must be submitted no later than 12:00 PM EDT on July 23, 2021.** Questions received after the deadline may not be answered. Questions shall not include proprietary data as the Government reserves the right to post submitted questions and answers, as necessary (and appropriate) to facilitate vendor solution responses.

6.3.1 The Government reserves the right to post submitted questions and answers, as necessary (and appropriate) to facilitate vendor Solution Paper responses. Submitted questions will be posted without identifying company names.

6.4 Solution Responses shall be submitted no later than 12:00 PM EDT on August 16, 2021. Solution Responses shall be submitted electronically to initiatives@nstxl.org, with "ITE Prototype" used in the subject line. Any submissions received after this time on this date may be rejected as late and not considered.

6.4.1 Vendors must clearly state assumptions made within their response. Vendors are encouraged to challenge any Government assumptions or restrictive requirements in its individual solution and should articulate any major discrepancies between the RFS and its technical solution. Should a vendor's solution require a change in policy and/or statute, the vendor shall outline within their technical volume, and describe why the change is needed to realize the benefit of the vendor's prototype (and potential production).

6.4.2 Vendor's solutions shall be valid for at least 180 days after submission.

7. Evaluation and Selection Process

7.1 Solution papers will be evaluated with consideration given to the vendor's ability to provide a clear description of the proposed solution, technical merit of the response, feasibility of implementation, vendor's experience, 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

7.2 The Government will evaluate the degree to which the submission provides a thorough, flexible, and sound approach in response to the ability to fulfill the requirements.

7.3. Interested vendors are requested to provide proposed solutions outlining their:

- Operational System Objectives (RFS Section 5.3.6)
- Functional System Objectives (RFS Section 5.3.6)
- Scenario Generation Objectives (RFS Section 5.3.7)
- AAR Objectives (RFS Section 5.3.8)

In addition, interested vendors are required to provide the following:

- Fixed price amount further divided into severable milestones (RFS Section 5.4.1)

- An IMS for the entire effort with identified deliveries throughout the development of the prototype that also highlights any long-lead items. Long-lead items will not be used to negatively impact an offeror's proposal. This is being requested for planning purposes. (RFS Section 5.5.5)
- Rough Order of Magnitude (ROM) (RFS Section 5.5.3)

7.4. Individual responses will be evaluated with consideration given to the vendor's ability to provide a clear description of the proposed solution, technical merit of the response, feasibility of implementation, vendor's experience, 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. The evaluation will include consideration of the following, listed in no particular order of importance:

- Technical merit - Evaluation will be based the thoroughness, innovation, clarity, and soundness of the proposed approaches in meeting the requirements for all technical objectives as described in RFS Section 5.
- The performing vendor's experience in designing, developing, prototyping, and producing modeling and simulation tools, capabilities, supporting cloud-based infrastructure and systems that can automatically ingest, produce, store, deliver modeling and simulation content and platforms, working with various interfacing subsystems, and ability to support test and assessment of modeling and simulation products at DoD/IC facilities.
- Management Capabilities to include: Team composition/personnel and sub-vendor involvement, including description of sub-vendor tasks and experience, manufacturing capabilities and facilities.
- Feasibility of Implementation - Clear, concise, and well-developed solution with streamlined approach of being implemented into the ITE capabilities, ease of adapting final design prototype solution for reuse in various USMC training sites.
- Delivery Schedule - The vendor shall include the anticipated delivery dates with their solution that includes all ITE Prototype capabilities and completion dates for all tasks and task stages as described in the RFS. Response should clearly address planned documentation deliverables (including format and content) and any planned demonstrations, design reviews, and management reviews
- Data Rights - The vendor's technical response will require that they clearly outline the appropriate assertion rights in technical data, computer software and software documentation that will be delivered with their solutions along with meeting the minimum GPR data rights requirement.
- Vendors shall submit a fixed price amount price for its solution, further divided into severable milestones
- Vendors shall include a price estimate, for their submitted solution, that reflects the potential life cycle maintenance throughout the ITE period of

performance.

7.5 Cost and Pricing Breakdown

It is important to note, the entire 3-year prototype project has a maximum ceiling budget of \$3,000,000. The government anticipates up to \$1,000,000 are available for the first year of this project. The Government will evaluate the vendors pricing solution to determine if the solution price is within budget. This will support determining the level of associated risk.

7.6 Selection Process

7.6.1 The Government will review each vendor's submittal against the criteria as described in Sections 7.3 and 7.4, with major consideration given in no specific order of importance to the technical merit (including product line quality factors such as agility and reuse), feasibility of implementation, and total project risk. The proposed project price, delivery schedule, and data rights assertions will also be considered as aspects of the entire response when weighing risk and reward. Further, the Government will evaluate the degree to which the proposed concept provides an innovative, unique – yet realistic and sustainable - approach to meeting the ITE Prototype technical capabilities and objectives.

7.6.2 Assessment of risk is subjective. If the risk is obvious or the schedule seems overly aggressive, the Government will consider that in the total risk assessment. Vendors are responsible for identifying risks within their submissions, as well as providing specific mitigation solutions. If sufficient validation of the proposed information is not provided, the Government may reject the submission.

7.6.3 Unsupported assertions will be discounted by the evaluators. Technology and Manufacturing Readiness Levels will be considered when weighing the benefit of the proposal.

7.6.4 The Government anticipates awarding to the vendor(s) whose response best satisfies the Government's objectives, referenced in Section 5.3.5, and will be most advantageous to the Government with price and other factors considered.

7.6.5 The Government reserves the right to award to a vendor that does not meet all of the requirements but provides attributes or partial solutions of value.

7.6.6 In making the final decision it may become necessary to compare the proposals of each vendor against the other, but the Government anticipates that its decision is more likely to be made based on each vendor's submittal as evaluated against the criteria described above and a determination of which solution(s) is/are determined to be the most advantageous to the Government.

8. Additional Information

8.1 Export Controls

Research findings and technology developments arising from the resulting proposed solution 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).

8.2 Interaction and/or Disclosure with Foreign Country/Foreign National Personnel

The Vendor should comply with foreign disclosure processes described in US Army Regulation (AR) 380-10, Foreign Disclosure and Contacts with Foreign Representatives; Department of Defense Directive (DoDD) 5230.11, Disclosure of Classified Military Information to Foreign Governments and International Organizations; and DoDD 5230.20, Visits and Assignments of Foreign Nationals.

8.3 Cyber Incident Reporting: The awardee will properly protect data and comply with specific Government reporting procedures in the event Government data is compromised.

8.4 By submitting a response, respondents shall certify whether covered telecommunications equipment or services **will or will not** be included as a part of its offered products or services to the Government in the performance of this effort.

RFS Attachment 09 includes additional detail regarding the representation which must be signed and returned with any submissions.

8.5 All submissions will 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 will include the following sentences on the cover page:

“This submission includes data that will not be disclosed outside the Government, except to non-Government personnel for evaluation purposes, and will 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 will 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]”

8.6 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.”

9. Follow-On Production

Pursuant to 10 U.S.C. 2371b(f), if competitive procedures were used for the selection of parties for participation in the transaction for a prototype pilot and the participants in the transaction successfully completed the prototype project, production OTs are authorized and offer a streamlined method for transitioning into follow-on production without competition. Potential follow-on production contracts may be either sole source, based on successful completion of the prototype project within the scope of this document, or competed at the discretion of the Government.

It is anticipated that upon successful completion of the prototype, a follow-on production OT agreement(s) or FAR based contract(s) may be issued to the vendor(s) without the use of competitive procedures. Successful completion will occur when the prototype has been validated and is accepted by the Government. Successful completion will be defined in the negotiated Statement of Work (SOW) for this prototype project.

Further, the government reserves the right to determine part or all of the prototype project is successfully completed if the vendor shows a particularly favorable or unexpected result justifying the transition to production. These conditions will be specifically defined in the SOW.

Vendors shall provide a ROM for their approach for handling the potential follow-on production activities as described in Section 5.5.2. Furthermore, the follow-on production ROM will assist in future planning efforts for potential follow-on production efforts. Please note that the follow-on production ROM(s) are NOT part of the evaluation.

Prior to issuing a sole source Follow-On production agreement or contract, the Government will enter into negotiations with the awarded vendor. The negotiations may include evaluation of all potential cost element categories applicable to the effort and may also use price realism analysis. The Government will utilize the most applicable method in determining cost elements and prices are fair and reasonable.

10. Attachments

To support the ITE prototype project RFS, the following documents will be provided. Each document will be marked and protected accordingly to support distribution and storage. This may include the vetting of vendors, in accordance with establish Government policy and procedures, prior to distribution.

Attachment 1, Technology Readiness Level (TRL), (Distro A)

Attachment 2, Security Process for Vetting Contractors

Attachment 3, Questions Form

Attachment 4, Data Rights Assertions Tables

Attachment 5, Data Rights License Terms and Definitions

Attachment 6, Terms and Conditions and EULA

Attachment 7, GFI Tech Data Distribution Agreement

Attachment 8, Vendor Self Vetting Form

Attachment 9, Section 889, Telecommunications and Representation