

Title: Request for Information (RFI)
For
Soldier Software Systems Development
Under

Project Manager Integrated Visual Augmentation System (IVAS)

The U.S. Army Contracting Command-Aberdeen Proving Ground (ACC-APG) is seeking information from industry professionals regarding Soldier Software Systems Development (S3D). If you previously submitted a response to the Artificial Intelligence/Machine Learning (AI/ML) RFI request in January 2022 (W91CRBAI-ML01192022), you do not need to address the AI/ML portion again as additional information is only needed on the updated software portion.

1.0 Description

The Integrated Visual Augmentation System (IVAS) will require a contract vehicle to develop and sustain software on soldier platforms. Software currently includes ARC4, Intra Soldier Wireless, Mobile/Handheld Computing Environment (M/HH CE) applications, Heads Up Display (HUD), Tactical Cloud Package, WatchTower, Geospatial applications such as CORE3D and geospatial software for One World Terrain, algorithms for Soldier Borne Sensors (SBS) like the Black Hornet, and future systems.

2.0 General Requirement

2.1 This Request for Information (RFI) is:

- Seeking information from industry professionals to determine their capabilities to develop and sustain soldier software systems and applications such as Artificial Intelligence/Machine Learning (AI/ML), Tactical Assault Kit (TAK), Extended Reality, Geospatial, Cloud Applications, Unmanned Vehicle software solutions into Government designated Army Systems for development and sustainment of software.
- Being issued solely for information and planning purposes. Various concepts may be examined based upon input provided.

2.2 This RFI does not constitute a Request for Proposal (RFP) or a promise to issue an RFP in the future. A solicitation is not available at this time. Requests for a solicitation will not receive a response; unsolicited proposal responses to this request will not be considered as offers. Telephone requests for additional information will not be honored. This notice does not constitute a commitment by the United States Government to contract for any supply or service whatsoever. All information submitted in response to this announcement is voluntary, therefore the United States Government will not pay for information requested nor will it compensate any respondent for any cost incurred in developing information provided to the United States Government.

- 2.3 Not responding to this RFI does not preclude any vendor from participating in any future RFP, if any is issued. If a solicitation is released, it will be synopsisized via the System for Award Management (SAM.gov) website. It is the responsibility of vendors to monitor this website for additional information pertaining to this requirement.

3.0 RFI Responses

3.1 General

- 3.1.1 Potential sources who believe they possess the qualifications, expertise and experience are requested to provide capability statements to this RFI by submitting written responses to points of contact listed below.
- 3.1.2 Capability statements SHALL NOT CONTAIN CLASSIFIED INFORMATION and shall clearly mark any proprietary information.
- 3.1.3 Capability statement responses shall not exceed a page limit of ten (15) pages maximum, typed in 12-point Times New Roman font, single spaced, one (1) inch margins, with appendices or attachments included in the page count.

3.2 Administrative: Responses shall include the following information:

- 3.2.1 Vendor's name, CAGE Code, DUNS Number, address, point of contact, phone number, and e-mail address, business size (large business, small business, small, disadvantaged business, 8(a) certified small, disadvantaged business, HUBZone small business, woman-owned small business, very small business, veteran-owned small business, service-disabled veteran-owned small business).
- 3.2.2 Vendor's NAICS code, if currently performing this type of service(s) under other contracts. Is your company currently providing similar services under any U.S. Government contracts? If yes, for which agency(s)? What is/are the contract number(s)? What is the contract type? How long has your company been providing these types of services? How long has your company provided this type of service to the Government?
- 3.2.3 Areas of Interest: Responses should follow the format outlined in 3.2.3.1 through 3.2.3.6 and should meet all of the lettered requirements requested in any of the tasks listed below (for example: if responding to AI/ML, you must be able to provide all capabilities a-o to be considered for this task) . Respondents are requested to detail their capabilities and experience (for the Government or commercial customers) with development and sustainment of any or all of the following tasks:

3.2.3.1 Artificial Intelligence / Machine Learning (AI/ML)

- a. Machine Learning Operations (MLOps)
- b. AI/ML Algorithm Model Training Data and Model Library
- c. AI Model Maintenance Platform
- d. AI Enabled Target Detection Algorithms
- e. Multi Sensor Data Collection, Conditioning, and Labeling
- f. Battlefield Data Processing
- g. Federated Data Search and Discovery
- h. Synthetic Data Generation
- i. Assisted Mission Planning Using AI Tactical Predictions
- j. Semantic Segmentation
- k. Radio Frequency (RF) Analysis
- l. Sensitive Site Exploitation and Battlefield Intelligence Rapid Analytics
- m. Test and Evaluation Red Team
- n. Passive Range Estimation
- o. Biometrics

3.2.3.2 Tactical Assault Kit (TAK)

- a. TAK software plugins (WinTAK, ATAK, etc.)
- b. TAK Networking

3.2.3.3 Extended Reality

- a. Standalone Applications and Plugin Development for Extended Reality HUD
- b. Extended Reality Soldier Interface
- c. Unity or Unreal Game Engine Extended Reality Development
- d. Mission Planning and Command and Control
- e. Vehicle Integration
- f. Interface to External Sensors and Systems
- g. Soldier Performance
- h. Novel User Input for Extended Reality Applications
- i. Medical Training and Assistance
- j. Vehicle Maintenance and Repair

3.2.3.4 Geospatial

- a. Geospatial Data Analysis for Tactical Use
- b. 2D and 3D Model Generation and Registration from Multiple Data Sources
- c. GPS Denied Navigation
- d. Target Mensuration
- e. Regional Terrain Product Availability Selector
- f. Data Synchronization with Cloud Repository

3.2.3.5 Cloud Applications: (develop, execute, modify and process applications in the Cloud)

- a. Methodology to Collect and Store Data,
- b. Replicate, Organize, and Extract Metadata from Unstructured Data
- b. Transform Data Between Machine and Human Readable Formats
- c. Online Analytic and Visualization Tools
- d. Online Processing of Uploaded Programs and Data
- e. Streamlined Cloud to Edge and Edge to Cloud Architecture
- f. Mobile Device Management

3.2.3.6 Unmanned Vehicles

- a. Unmanned Vehicle Collision Avoidance and Autonomous Control
- b. Manned-Unmanned Teaming
- c. Unmanned Vehicle Swarming
- d. Persistent Surveillance

3.3 Response Submission: Responses to this notice shall be submitted to:

3.3.1 Points of Contact:

- a. Primary: Ms. Kelsey Collins at Kelsey.m.collins3.civ@army.mil
- b. Secondary: Ms. Lisa J. Yamakawa at lisa.j.yamakawa.civ@army.mil

3.3.2 Response Time and Date: Responses shall be submitted to the above stated Points of Contact **no later than 10:00 a.m. Eastern Daylight Time on 11 October 2022.**