

Joint Electromagnetic Battle Management (EMBM) System - Decision Support (DS)

Phase I – Request for Initial Presentation  
Project Number: DISA-OTA-23-R-EMBM-J



**DEFENSE INFORMATION SYSTEMS AGENCY**  
The IT Combat Support Agency



**Other Transaction Authority (OTA)**

**Phase I Request for Initial Presentation (RFIP)**

<b>Project Number</b>	DISA-OTA-23-R-EMBM-J
<b>Request for Initial Presentation Title</b>	Joint Electromagnetic Battle Management – Decision Support Prototype
<b>Issued by</b>	Defense Information Systems Agency (DISA) Other Transaction (OT) Agreement Team
<b>Date/Time (Suspense)*</b>	<b>Intent to Submit due NLT 0800 EST 17 February 2023</b> <b>Presentations due NLT 1200 (NOON) EST 17 March 2023</b>
<b>Submit Presentation To</b>	Agreements Officer: Craig Carlton <a href="mailto:craig.j.carlton.civ@mail.mil">craig.j.carlton.civ@mail.mil</a> Agreements Specialist: Jeremy Markusic <a href="mailto:jeremy.d.markusic.civ@mail.mil">jeremy.d.markusic.civ@mail.mil</a> Agreements Transaction Mailbox: <a href="mailto:disa.scott.ditco.mbx.pl84-other-transaction-authority@mail.mil">disa.scott.ditco.mbx.pl84-other-transaction-authority@mail.mil</a>

*Note: Please provide an intent to submit to DISA NLT 17 February 2023 at 0800, via email to [disa.scott.ditco.mbx.pl84-other-transaction-authority@mail.mil](mailto:disa.scott.ditco.mbx.pl84-other-transaction-authority@mail.mil) if your organization intends to participate in the request for initial presentation. Any submissions that are received by the Agreements Officer/Agreements Specialist after the deadline will be deemed late and may be eliminated from competition and further consideration. It is the sole responsibility of the vendor to ensure that its presentation submission is received in the inbox of the Agreements Officer/Agreements Specialist and in the aforementioned OTA inbox before the deadline specified above.*

**AMENDMENT FOUR: The purpose of Amendment Three (0004) is for the following purpose:**

1. Provide responses to additional questions from industry as an attachment to this Request for Initial Presentation (RFIP). Additional questions and responses are in **yellow**.
2. Update Initial Presentation Dates in 3.5.2, highlighted in **yellow**.
3. All other terms and conditions of the RFIP remain the same.

**AMENDMENT THREE: The purpose of Amendment Three (0003) is for the following purpose:**

4. Provide responses to questions from industry as an attachment to this Request for Initial Presentation (RFIP).
5. All other terms and conditions of the RFIP remain the same.

**AMENDMENT TWO: The purpose of Amendment Two (0002) is for the following purpose:**

6. Update dates of significance within this Request for Initial Presentation (RFIP) in Section 3.5.
7. All changes within the RFIP are highlighted in **purple**.
8. All other terms and conditions of the RFIP remain the same.

**AMENDMENT ONE: The purpose of Amendment One (0001) is for the following purpose:**

9. Update dates of significance within this Request for Initial Presentation (RFIP) in Sections 3.4 and 3.5.
10. All changes within the RFIP are highlighted in **blue**.
11. All other terms and conditions of the RFIP remain the same.

## **PURPOSE OF THIS RELEASE**

The Defense Information Systems Agency (DISA), Emerging Technology (EM) Directorate through the DISA Procurement Services Directorate (PSD) is seeking an Other Transaction (OT) Agreement to fulfill the prototyping need for Joint Electromagnetic Battle Management (EMBM-J) planning and management capabilities, enhanced Electromagnetic Spectrum (EMS) Decision Support (DS), and improved interoperability with related service, joint and intelligence tools, and systems.

The Government requires an Electromagnetic Battle Management Decision Support (EMBM-DS) capability as part of its overall EMBM-J program. This release focuses on the EMBM-J-DS capability (abbreviated as EMBM-DS).

*Note on Nomenclature: For the purposes of this document, the comprehensive Joint Electromagnetic Battle Management capability will be referred to as "EMBM" or "EMBM-J". The Situational Awareness and Decision Support capabilities that form part of the EMBM solution will be hereafter referred to EMBM-SA and EMBM-DS, respectively.*

## **SECTION 1: BACKGROUND**

## Joint Electromagnetic Battle Management (EMBM) System - Decision Support (DS)

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### 1.1: Background

United States (U.S) dominance in air, land, sea, space, and cyberspace relies on accessing the electromagnetic spectrum (EMS) when and where needed. Today, we are challenged by peer and near-peer adversaries. These challenges have highlighted the cross-cutting reliance of the Joint Force on the EMS.

To prevail in the next conflict, a joint force must win the fight for EMS superiority across all joint functions and domains. Achieving superiority is complicated by increasing EMS constraints, congestion, and growth of EMS threats.

In pursuit of Department of Defense's (DOD) objective to achieve superiority in the EMS and maintain a joint all-domain advantage, Defense Information Systems Agency (DISA) Defense Spectrum Organization (DSO) is developing a Joint Electromagnetic Battle Management capability to support the Joint Force Commander (JFC) in all activities related to organizing, understanding, planning, deciding, directing, and monitoring joint EMS operations (JEMSO).

JFC-level (i.e., Combatant Command (CCMD) or Joint Task Force (JTF)) JEMSO consists of the dynamic planning, directing, monitoring, and assessing of EMS operations in the Commander's scheme of maneuver.

CCMD and JTF JEMSO Cells (JEMSOCs) coordinate with Service Component EMS Operations (EMSO) staffs to enable situational understanding of the electromagnetic operational environment (EMOE), and prioritize, integrate, and deconflict Service electromagnetic spectrum operations (EMSO) plans for their assigned operational areas, across all domains, functions and technologic standards implementation. In an evolving and growing competitive environment, the traditional, manual, time, and labor-intensive methods of managing the myriad of electromagnetic emitters and apertures on the modern battlefield are no longer adequate. An EMBM system operating in command centers will allow commanders to coordinate, synchronize, and integrate EMS operations into the maneuver space across the full range of their military operations. To prevail in any conflict, the Joint Force must win the fight for EMS superiority. The EMS is shared by adversary forces, allies, host nations, and commercial and international organizations. For this reason, a robust understanding of the EMOE is critical for Joint Forces to enable EMS freedom of operations. To gain freedom of operations, Joint Forces must conduct integrated Electromagnetic Spectrum Operations (EMSO) facilitated with an EMBM capability. New spectrum dependent systems (SDSs) will enable dynamic and autonomous maneuver in spectrum. Therefore, the design of this EMBM system must anticipate and account for current and unknown future EMS maneuver behaviors of SDSs. Joint Force Commanders will then achieve unity of effort resulting in EMS superiority.

The EMBM-J system is split into four capabilities, as defined by the Capability Development Document (CDD) found in the bidders' library:

1. Situational Awareness (SA) - (EMBM-J-SA, abbreviated as EMBM-SA)
2. Decision Support (DS) – The subject of this prototype OT (EMBM-J -DS, abbreviated as EMBM-DS))
3. Command and Control (C2) and (EMBM-J-C2, abbreviated as EMBM-C2)
4. Training

EMBM-SA, the first increment of EMBM, is presently under development. This capability is not the subject of this OTA, and it is being separately developed through an agile methodology. The first capability release is expected to be delivered in the 2<sup>nd</sup> Quarter of Fiscal Year 2023 (2QFY23). EMBM-SA has been hosted in the National Geospatial-Intelligence Agency (NGA) commercial cloud services (C2S) environment. More information on EMBM-SA can be found in the bidders' library to this acquisition. The C2 and Training capabilities will be developed after the EMBM-DS prototype period.

### 1.2 Purpose of this Document

This Request for Initial Presentations (RFIP) commences the acquisition process for the EMBM-DS capability. The Government will use a three-phased acquisition process to identify potential vendor(s) to develop an EMBM-DS prototype.

This document serves dual purposes of: (1) introducing and initiating the three-phased acquisition process for EMBM-DS and (2) providing specific details and expectations for the EMBM-DS Initial Presentations, the first phase of this acquisition.

### 1.3: Prototype Other Transaction Agreement (OTA)

The Government will compete this prototype OT, EMBM-DS, in accordance with 10 U.S.C. §4022, amongst vendors that can solve EMS operations problems in the EMOE faced by Joint Force Commanders. The prototype effort will focus on delivering value to the warfighter through a process of continuous agile development and continuous value delivery. It is expected that a Minimum Viable Capability Release (MVCR) that addresses the prototype requirements will be delivered and deployed prior to completion of the prototype.

The intent of the overarching Prototype OTA is to successfully complete an EMBM-DS production ready prototype, ready to move into the production phase. Initial delivery/deployment of capability will be a MVCR that provides measurable, operational improvements and impact. The Government's objective is to release an MVCR within a production environment on SIPRNET within twelve (12) months of prototype project initiation. Completed prototype (MVCR with two (2) additional releases to address needed refinement and additional functionality) will be delivered no later than eighteen (18) months after project initiation. Based on the successful prototype, the Government may award a follow-on production OTA agreement to the participant(s) in the transaction for the prototype project, without further competition.

### 1.4: EMBM-DS Statement of Need and Success Criteria

The complete Statement of Need can be found at Appendix A (Statement of Need).

The result of the successfully completed Prototype OT will be an MVCR that demonstrates Joint EMS planning and management capabilities with a focus on Decision Support for the JFC-level JEMSOCs and the JFC. The EMBM-DS Prototype shall meet the following seven attributes, which are necessary for the EMBM-DS prototype OT effort to be considered successful. These are considered to be the success criteria for the EMBM-DS Prototype\*:

- 1. Successful Joint Deliberate Planning Capabilities** – JFC-level JEMSOC end-users are able to plan current and future EMS operations using the Joint Planning Process as described in JP 5.0 and JP 3-85.
- 2. Successful Decision Support Capabilities** – JFC-level JEMSOC end-users are able to rapidly recommend well-informed spectrum operation decisions.
- 3. Successful Cloud Deployment** – Successful deployment on the Secret Internet Protocol Router Network (SIPRNET) and deploy onto the NGA commercial cloud services hosting environment that leverages containerization, microservices, open application programming interface (APIs), and DevSecOps to enable extensibility, interoperability, reusability, and scalability.  
*Note: Deployment to another hosting environment may be permissible if it is appropriately justified, provides the highest level of benefit, and is in the Government's best interest.*
- 4. Successful interoperability (and/or integration) with EMBM-SA** – Prototype capability is successfully integrated or interoperable with EMBM-SA architectural components, data and analytic microservices, and authorization and authentication architecture. Interoperability and integration shall occur to the greatest extent possible in order to capitalize on performance, schedule, and cost efficiencies.
- 5. Successful Implementation of DevSecOps** - Prototype capabilities are successfully delivered through iterative development cycles that (1) leverage a robust DevSecOps approach to Continuous Integration and Continuous Delivery (CI/CD), (2) Support a rapid or continuous authority to operate, (3) deliver high quality code, (4) support DSO- led product management, and (5) use current best practices for User Interface/User Experience (UI/UX) design patterns, open architecture data storage, and microservice- based

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architecture for cloud-native implementation.

- 6. Satisfied Users** – Supported end-users are (1) satisfied with the delivered prototype capabilities, (2) can use the prototype intuitively and easily, and (3) are able to understand and utilize the delivered prototype capabilities. These requirements can be supported through user reporting, application telemetry, and/or other means.
- 7. Open Architecture Design** – Architecture is modular, extensible and extendable. Uses DoD-approved standards (e.g., Zero Trust Architecture, National Information Exchange Model (NIEM), Representational State Transfer (REST) services, etc.).

**\* Please note the Government reserves the right to modify successful completion criteria in the future, if it is determined to be in the best interests of the Government.**

### **1.5: EMBM-DS Acquisition and Evaluation Process**

For the award of the EMBM-DS prototype OTA, the Government will employ a three-phased Challenge-Based Acquisition (ChBA) to help the Government understand how vendors will best solve the EMBM – DS need and mitigate risk. The Government may make an award to the responsible vendor(s) whose solution, as proposed in response to the Government’s solicitation, conforming to the requirements outlined in statement of need, is determined to be the best overall value to the Government.

Please note that the Government may refine elements of the approach given what is learned working through the process with the pool of potential vendors. However, vendors can generally expect that the three phases below will be representative of the acquisition approach.

At any time during evaluations, the Government may choose to cancel this requirement or return to a previous acquisition phase. In case of cancellation, the Government will not be responsible for any expenses associated with responding to this Request for Initial Presentation invitation or any subsequent acquisition phase.

#### **1.5.1: Acquisition Phase I – Initial Presentation**

For the first phase, the Government requests potential vendors to respond to the Request for Initial Presentation (RFIP) prompt detailed in this document. Vendors shall prepare a presentation response to the initial presentation prompt which will be presented remotely, via Microsoft Teams.

The Government will evaluate all presentations submitted in response to the initial presentation to determine which vendors will proceed to the next phase. The evaluation criteria for Phase I are found in section 3.2. The Government may eliminate from further consideration any response to the RFIP that does not fully address all the requirements of the prompt and meet the evaluation criteria in section 3.2.

After evaluating the presentations, the Government may select one or more solutions to proceed to the next phase, Phase II – Challenge Demonstrations. The Government will conduct the initial presentation selection in accordance with Government procedures and the evaluation criteria in section 3.2. At the conclusion of Phase I, the Government will identify:

- Presentation(s) that will remain in competition and proceed to Phase II, Challenge Demonstrations, and
- Presentation that will be eliminated from competition and not be considered further.

The Government will provide all vendors, whose solutions were not selected, a letter containing a brief explanation of non-selection. Please note that since OT Agreements are not subject to the Federal Acquisition Regulations (FAR), a formal debriefing will not be provided. Additionally, the Government may provide vendors that participated in Phase I a brief explanation of selection or non-selection.

### 1.5.2: Acquisition Phase II – Challenge Demonstrations

The Challenge Demonstration phase will address the specific technical risks of successful EMBM-DS execution. The Government will provide each selected vendor with approximately 30 days to design their challenge solution, after which each selected vendor will demonstrate their EMBM-DS solutions to Government team remotely, via Microsoft Teams. Draft challenge topics are located at Appendix D.

The Government's Invitation to Challenges, which will be released following Phase I of this acquisition, will include the comprehensive challenge prompts, vendor expectations, evaluation criteria, and logistics information for Phase II. Vendors can expect that during the Challenge Demonstration, each vendor shall at minimum:

1. Describe how the approach delivered in the Initial Presentation Response (i.e., Phase I) can be expanded to meet the full Statement of Need.
2. Demonstrate in detail the proposed approach to solve the EMBM-DS need:
  - a. How the solution is engineered to meet the challenge requirements.
  - b. The benefits to the Government of the solution in terms of flexibility, extensibility, rapid scaling, and interoperability.
  - c. Lessons that were learned from conducting the challenge.
  - d. Any risks, associated mitigations, dependencies, or issues that were identified during the challenge development.
  - e. The refined ROM price for the prototype OT.

Appendix D contains the Government's draft scenario focus areas and evaluation criteria that will be used for the Challenge Demonstration phase. These criteria for Phase II are subject to change, but the Government will include the finalized evaluation criteria in the invitations that will be sent out to the selected vendors for Phase II – Challenge Demonstrations. The Government will evaluate the demonstration response to determine which vendors advance to the next phase, Phase III – Request for Project Proposal (RFPP). Any vendor whose solution the Government does not select to proceed to Phase III will receive notification of non-selection. Please note that since OT Agreements are not subject to the Federal Acquisition Regulations (FAR), a formal debriefing will not be provided. Additionally, the Government may provide vendors that participated in Phase II a brief explanation of selection or non-selection.

### 1.5.3: Acquisition Phase III – Request for Project Proposals (RFPP)

The Government will issue a RFPP to one or more selected vendors from Phase II – Challenges. Prior to delivering their formal proposal, vendors will be invited to meet with the Government to engage in collaboration sessions to refine their approaches. The RFPP, released as the initiation of Phase III, will include the requirements for proposal content, expectations for project work statement content, Phase III evaluation criteria, and logistics/planning considerations for collaboration and negotiation.

The Government will provide an initial model OT Agreement to the selected vendor(s), which will be the Government's opening position for negotiations. Using a collaborative process, the Government and each selected vendor will proceed to develop a detailed Project Work Statement, agreed-upon milestones, success parameters, Terms and Conditions, Intellectual Property (IP) rights, Non-Traditional Defense Contractor participation, price proposal, and deliverables. The Government will conduct these activities separately for each vendor.

Individual technical exchanges with each vendor that receives the RFPP will govern the collaborative process. The technical exchanges will not be evaluated. Vendors will run these time-boxed, collaborative meetings with the Government technical team. The process allows for discussion and for vendors to ask questions, provide feedback, and present an understanding of the Government's stated needs to reach EMBM-DS Prototype outcomes. The collaboration also allows the Government to provide feedback to vendors and collaboratively develop the Project Work Statement; the process also enables vendors to refine their technical documentation. Following the collaboration period, vendors will submit project proposals.

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The Government will evaluate the Project Proposals to ensure they meet requirements and then proceed with an award based on availability of funding. The Government may make an award to the responsible vendor(s) whose offer(s), conforming to the EMBM-DS requirements, is(are) determined to represent the best overall value to the Government, considering both price and other factors. At the conclusion of Phase III, the Government intends to award one (or more) prototype OTA(s). If the Government is unable to reach an agreement with the initial selectee, the Government may negotiate with another vendor invited to submit a Project proposal. In addition, the Government may, at its discretion, go back to Phase II-Challenge Demonstrations, and reevaluate submitted solutions. As part of the reevaluation, the Government may ask additional questions of any of the vendors selected for Phase II, request additional demonstrations to be conducted, and/or take any additional step(s) that will assist the Government with its reevaluation. Finally, the Government may, at its discretion, go directly to Phase I – Initial Presentations, and reevaluate submitted presentations. As part of the reevaluation, the Government may ask additional questions of any of the vendors selected of Phase I, request additional presentations to be conducted, and/or take any additional step(s) that will assist the Government with its reevaluation. If the Government selects any vendor(s) from Phase I, then this vendor(s) will be allowed to provide a demonstration, as outlined in Phase II-Challenge Demonstrations.

Following any selection decision, the Government will provide a letter with a brief explanation for non-selection to the vendor(s) whose solution was not selected. Please note that since OT Agreements are not subject to the Federal Acquisition Regulations (FAR), a formal debriefing will not be provided. Additionally, the Government may provide vendors that participated in Phase III a brief explanation of selection or non-selection.

**1.6: EMBM-DS Prototype Period of Performance**

The overall period of performance for this effort will not exceed 18 months. An MVCR that provides measurable, operational improvements shall be delivered to SIPRNET and deployed within 12 months of prototype project start.

**SECTION 2 AWARD**

**2.1: Selection Decision**

At the conclusion of the three-phased evaluation approach described in Section 1.5, the Government intends to negotiate, select, and fund the Prototype Project(s) which provides the best overall value to the Government and best meets the Government's need. Each phase will have separate evaluation criteria.

**2.2: Follow-on Production**

The Government intends to award one (or more) prototype OTA(s). Prior to awarding a prototype OTA, the Government will ensure that it complies with 10 U.S.C. §4022 and will obtain approval from the appropriate approval authority, based on the dollar threshold projected for the prototype OTA. The Government will perform this prior to entering the prototype OT with a selected vendor.

Provided that the prototype OTA is successfully completed, the Government may award a follow-on production FAR-based contract or OTA to the participant in the transaction for the prototype project, without further competition. If it is determined that transition activities are in our best interest, then we reserve the right to bilaterally modify the prototype agreement by adding such activities. Prior to award of the production contract or transaction, the Government will again ensure that it complies with 10 U.S.C. §4022 and again obtain approval from the appropriate approval authority, based on the dollar threshold projected for the production FAR-based contract or production OTA.

**2.3: Responses to this RFIP and Subsequent Acquisition Phases**

Vendors are solely responsible for all expenses associated with responding to this Request for Initial Presentation (RFIP) and all subsequent phases of this acquisition for this OTA. Responding to this RFIP (and all subsequent phases of this acquisition) invitation does not obligate the Government for costs associated with responding to this notice. The Government reserves the right to cancel this requirement if

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no initial presentations satisfy the criteria contained in Section 3.2 and/or no funding becomes available. In subsequent phases of this acquisition (i.e., Phase II or Phase III), the Government reserves the right to return to a previous acquisition phase or cancel the requirement should solutions not satisfy the Government's need and/or no funding becomes available.

Subject to the availability of funds, the DISA/Defense Information Technology Contracting Organization (DITCO) at Scott AFB, IL intends to competitively issue this effort as one (or more) prototype OTA Agreement in accordance with 10 U.S.C. §4022. If an OTA is awarded from this subject request, the Agreement is not considered a procurement contract and therefore not subject to FAR.

At any time during evaluations, the Government may choose to cancel this requirement or return to a previous acquisition phase. In case of cancellation, the Government will not be responsible for any expenses associated with responding to this Request for Initial Presentation invitation or any subsequent acquisition phase.

### **SECTION 3 REQUEST FOR INITIAL PRESENTATION TOPIC AND EVALUATION CRITERIA**

Failure to adhere to instructions for RFIP participation may result in failure to proceed to subsequent phases of this acquisition.

Each vendor shall complete and submit the following items with their presentation submission (see Appendix E)

- Submitter Statement
- Patent Owner(s) Statement
- Reference Owner(s) Statement
- Affirmation of Business Status Certification
- Conflicts of Interests (COI)

#### **3.1: Initial Presentation Prompt**

Vendor presentations shall address the following topics:

1. Describe how the proposed solution will satisfy the requirement to provide decision support to battlespace commanders, JFC-level JEMSOC users. The vendor shall present how their solution will enable users to model a course of action (COA) and support the JTF JEMSOC's review and evaluation of this COA and development of EMS maneuver plans to support the COA. Further, the vendor shall present how their proposed solution will analyze multiple COAs and support the determination of the best COA to accomplish the commander's intent.
2. In accordance with the requirements detailed in the Statement of Needs, describe an optimal commercial cloud-based software architecture solution capable of:
  - a. Building, leveraging, and/or implementing DevSecOps development practices and a DevSecOps pipeline.
  - b. Deploying a solution capable of rapidly processing large amounts of data to support pre-execution planning for EMSO Joint Planning Process and assessment of dynamic EMS utilization.
  - c. Utilizing the NGA Commercial Cloud services hosting environment or justifying use of another hosting environment.

The proposed software architecture should promote extensibility, interoperability, be capable of providing and consuming microservices/APIs, and be capable of utilizing third-party data lake storage solutions (e.g., from EMBM-SA).

3. Provide a rough order of magnitude (ROM) price for the prototype project, including identifying key risks and drivers of price.



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### 3.2: Initial Presentation Evaluation Criteria

The Government will evaluate the presentation's technical merit for maximizing innovation while balancing risk, based on the criteria listed below:

1. The degree to which the vendor's solution meets or exceeds the SoN for Decision Support
2. The degree to which the vendor incorporates innovative solutions and reasonable tradeoffs to efficiently meet the SoN
3. The degree to which the vendor's presentation/approach meets the cloud-based software architecture requirements detailed in the SoN while facilitating secure development and operations in an enterprise cloud and DevSecOps environment.
4. The degree to which the proposed ROM price is affordable and reasonable.

### 3.3: DISA Points of Contact (POCs)

Please direct all communications regarding this acquisition and solicitation to the following POCs:

- Agreements Officer: Craig Carlton [craig.j.carlton.civ@mail.mil](mailto:craig.j.carlton.civ@mail.mil)
- Agreements Specialist: Jeremy Markusic [jeremy.d.markusic.civ@mail.mil](mailto:jeremy.d.markusic.civ@mail.mil)
- Agreements Transaction Mailbox: [disa.scott.ditco.mbx.pl84-other-transaction-authority@mail.mil](mailto:disa.scott.ditco.mbx.pl84-other-transaction-authority@mail.mil)

### 3.4: Intent to Submit Responses

Vendors shall provide the Government with an Intent to Submit no later than 0800 EST on 17 February 2023. Included within the intent to submit, vendors should include a list of up to five POCs that will participate in the presentation(s). The Government will utilize information provided within vendor's intent to submit to schedule presentation times, send invitations to events, and provide communications to identified POCs.

Vendor's intent to participate in Phase I must be received by (be in the inbox of) the Agreements Officer, Agreements Specialist, and Agreements Transaction Mailbox by the aforementioned deadline. Any submissions that are received by the Agreements Officer's inbox and/or Agreements Specialist's inbox, and/or the Agreements Transaction Mailbox's inbox after the deadline may be deemed late and will not be scheduled for a presentation. It is the sole responsibility of the vendor to ensure that its intent to submit is received in the inbox of the Agreements Officer/Agreements Specialist before the deadline specified above.

### 3.5: Initial Presentation Logistics

#### 3.5.1: Question and Answer (Q&A) Period and Q&A Session

Please provide any questions, in writing, no later than 1600 EST 03 March 2023 to the Agreements Officer, Agreements Specialist, and the Agreements Transaction Mailbox. The Government reserves the right to not answer questions submitted after this time. Any submissions that are received after the Initial Presentation due date will receive no further consideration.

The Government will host a Q&A session the week of 27 February 2023 through Microsoft Teams.

Questions may be submitted in advance of this session to the Agreements Officer and Agreements Specialist. The Q&A session will not be limited to covering those questions submitted in advance of the Q&A session but will allow vendors to ask questions of the Government team. An invitation to this Q&A session will be sent to vendors that have expressed an intent to respond to the RFIP. Questions should be provided to the Agreements Officer and Agreements Specialist 3 business days ahead of the session.

#### 3.5.2: Presentation Dates and Location

Vendors presentation day assignments will be randomly drawn and assigned by the Government team. Presentation dates will be scheduled from 20 March through 27 March 2023. Each presentation will be limited to 60 Minutes, followed by a 60-minute Government Q&A period. There will be a short break between the conclusion of vendor presentations and beginning the Government Q&A period for the

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Government to caucus. The Q&As will not be shared with other vendors who are giving presentations, and they will be kept confidential. Presentation Dates will only be scheduled for vendors that have expressed an intent to respond to this RFIP, in accordance with section 3.4.

All presentations will be conducted virtually via Microsoft Teams. A Microsoft Teams invite will be sent by the Government to the vendor POCs (and team) for their assigned date and time of their presentation. Vendors are responsible for their team's ability to use Teams and for any and all associated audio-visual challenges should they occur. Vendor Initial Presentations will be conducted via virtual participation only. To protect proprietary information and encourage collaboration, each company will have a separate invitation and unique meeting access code. On the assigned presentation day, the Government meeting leader will admit participants through Microsoft Teams. During the Presentation Period, vendors will share their screens and present materials/presentations via the Microsoft Teams platform. Vendors are responsible for ensuring that they are capable of utilizing this platform to support their presentation. Technical disruptions that are outside of the vendor's control will be closely monitored for presentation impacts. If needed, time will be returned to vendors to ensure parity and consistency between all participants.

Presentations are vendor-driven, and vendor-led. The Government will provide a timekeeper for all presentations in order to ensure on-time completion of the presentation.

### 3.5.3: Government Furnished Information (GFI)

GFI requests (reference Appendix B and Appendix C) should be submitted to the aforementioned points of contact. The Government reserves the right to not release all requested information. Any requests that are received after 1600 EST 03 March 2023 will not be provided with the requested information.

GFI will be sent using the Department of Defense (DoD) Secure Access File Exchange (SAFE) Application. Access information and passwords will be sent to vendor POCs.

### 3.5.4: Reach-Back and Team Size

To retain the integrity and fairness of the demonstrations, vendors will be expected to perform presentations live via Microsoft Teams. Vendors must limit their demonstration team size to no more than five (5) separate individuals. It is highly encouraged that key technical personnel (not Business Development and/or Marketing POCs) and key partners lead the presentations.

### 3.5.5: Materials Submissions

Vendors shall provide their presentation to the Government POCs (i.e., Agreements Officer, Agreements Specialist, and Agreement Transactions Mailbox) identified in Section 3.3 no later than 1200 EST 17 March 2023. Submissions that are not received 48 hours prior to the presentation start may not be considered, and the Government may cancel that vendor's presentation time, eliminating that vendor from further consideration for this OTA.

Submitted presentations shall be limited to presentation material only. The Government will not consider supplementary material or information that is not presented in the vendor's demonstrations. For example, if a vendor articulates "please see our supplement for an explanation of our security practices" the Government will not consider that supplement. In this example, the vendor is expected to present the security practices that are germane to the demonstration and evaluation criteria.

Presentations will be limited to UNCLASSIFIED and CONTROLLED UNCLASSIFIED INFORMATION (CUI) only. Proprietary information and trade secrets, if any, must be clearly marked on all materials submitted as part of the presentations. All information that is marked or verbally stated as being "Proprietary" will be handled accordingly. Please be advised that all submitted materials become Government property and will not be returned nor will receipt be confirmed.

## SECTION 4 ADDITIONAL INFORMATION

#### 4.1: EMBM Document Classification

Vendors shall not submit any documentation that is classified as “Confidential,” “Secret,” or “Top Secret” throughout the evaluation process. This includes, but is not limited to, submission of initial presentations, Challenge Demonstrations, Project Proposals, Project Work Statements, etc. Classified information will not be evaluated or considered.

#### 4.2: Disclosure of Information

Vendors shall include the following sentences on the cover pages of any/all documents submitted to the Government that contain data that vendor does not want to be disclosed to the public for any purpose or used by the Government except for evaluation purposes:

“This [presentation, Proposal, PWS, etc.] 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 issued 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].”

Non-Government personnel will be used in the evaluation of the initial presentations, Challenge Demonstrations, and Project Proposals. The non-Government advisors may have access to all aspects of the vendor’s submitted materials. By submitting an initial presentation, Challenge Demonstration response, or Project Proposal, vendors agree with the use of a non-Government advisor employed with the following companies:

- The MITRE Corporation
- Command Decisions Systems & Solutions, Inc. (CDS2)

#### 4.3: Data Sheet Markings

Marking requirements specify that vendors “conspicuously and legibly” mark data with a protective legend that identifies the OTA project number, vendor’s name and address, and the submittal date, along with the warning “Use or disclosure of data contained on this sheet is subject to restriction” on the title page of any restricted data sheets.

#### 4.4: Security Clearances

Vendors are responsible for providing personnel with appropriate security clearances to ensure compliance with Government security regulations. The vendor shall fully cooperate on all security checks and investigations by furnishing requested information to verify the vendor employee’s eligibility for any required clearance.

The vendors proposed solution (e.g., data, integration with supporting DoD Infrastructure, architecture) will determine the personnel and facility security clearance requirements for the prototype effort. At a minimum, the vendor shall provide sufficient personnel with active TS with ability to obtain CI poly and Secret clearances to support the prototype deployment effort. The Government will provide additional details regarding the required security clearances in the RFPP.

All personnel supporting this effort shall be US Citizens.

#### 4.5: Data Storage

To protect against seizure and improper use by non-United States (U.S.) persons and government entities, all data stored and processed by/for the DoD must reside in a facility under the exclusive legal jurisdiction of the U.S. The vendor will be required to maintain all government data that is not physically located on DoD premises within the 50 States, the District of Columbia, and outlying areas of the U.S., unless

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otherwise authorized by the responsible Government representative (i.e., the Agreements Officer), as described in DoDI 8510.01 and the DoD Cloud Computing Security Requirements Guide.

If the Government data is co-located with the non-Government data, the vendor shall isolate the Government data into an environment where it may be reviewed, scanned, or forensically evaluated in a secure space with access limited to authorized Government personnel identified by the Agreements Officer, and without the vendor's involvement. The vendor shall record all physical access to the cloud storage facilities and all logical access to the Government data. This may include the entrant's name, role, purpose, account identification, entry and exit time. Such records shall be provided to the Agreements Officer or designee in accordance with the agreement or upon request to comply with federal authorities.

#### **4.6: Law Enforcement**

The vendor shall acknowledge and affirm that United States (U.S.) Federal law enforcement officials do not need a warrant or a subpoena to access Government data on any system or media employed by the vendor or their sub-vendors or other partners, or allies, to deliver or otherwise support the contracted service for the U.S. Government, subject to requirements for access to classified information and release thereof, if applicable. As specified by the Agreements Officer, the vendor shall provide immediate access to all Government data and Government-related data impacting Government data for review, scan, or conduct of a forensic evaluation and physical access to any vendor facility with Government data.

#### **4.7: Notification**

The vendor shall notify the Government Security Contacts (Disa.meade.bd.mbx.sd-securitymanagers@mail.mil), and the AO within 60 minutes of any warrants, seizures, or subpoenas it receives, including those from another Federal Agency that could result in the loss or unauthorized disclosure of any Government data. The vendor shall cooperate with the Government to take all measures to protect Government data from any loss or unauthorized disclosure that might reasonably result from the execution of any such warrant, seizure, subpoena, or similar legal process.

#### **4.8: Vendor Incurred Costs**

The costs associated with participating in Phases I through III, to include initial presentation(s) preparation and submission, are not considered an allowable charge and should not be included within the ROM or any pricing information. Additionally, in case of a cancellation of this requirement, the Government will not be responsible for any such incurred costs.

#### **4.9: Export Controls**

Research findings and technology developments arising from the resulting initial presentation 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 CFR 120-130), the National Industrial Security Program Operating Manual (DoD 5220.22-M) and the Department of Commerce Export Regulation (15 CFR 730-774).

### **SECTION 5 AVAILABILITY OF FUNDS**

The Government's obligation under this agreement is contingent upon the availability of appropriated funds from which payment for agreement purposes can be made. No legal liability on the part of the Government for any payment may arise until funds are made available to the Agreements Officer for this contract and until the Vendor receives notice of such availability, to be confirmed in writing by the Agreements Officer.

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## APPENDIX A: STATEMENT OF NEED

### A.1: EMBM-DS Needs

The capabilities developed under this Prototype OT Agreement shall meet the following attributes and requirements, which are necessary for the EMBM-DS prototype OT effort to be considered successful. Vendors shall review and consider Section A.3 of this document as part of their prototype design. EMBM-DS prototype capability shall address the following:

1. The preferred EMBM-DS deployment environment is NGA C2S IL6 (Note: More information about NGA infrastructure can be found in the bidder's library.):
  - a. Will be deployed in the NGA environment. (More information about NGA infrastructure can be found in the bidder's library.)
  - b. Deployment in another hosting environment may be permissible if justified through the 3-phase acquisition. Other hosting environments must provide discrete benefit to the Government. For consideration, NGA is the preferred environment as it:
    - Enhances efficiency of integration with EMBM-SA, leveraging COTS components/licensing, Authentication and authorization, and other features
    - Enables the leveraging of a working and functional Authority to Operate (ATO) approval process that is already being exercised
    - Enables leveraging of established onboarding, integration, and IA teams
    - Leverages inherited controls from the infrastructure
    - Leveraging requisite security classification domains, including JWICS
    - Employs an enterprise Cross Domain Solution (i.e., "Project Wormhole")
    - Leverages NGA's planned capability roadmap, including the implementation of Zero Trust.
    - Offers IL6 which is not yet available in DISA's JWCC
2. Establish and/or leverage a DevSecOps pipeline with appropriate tooling to support ATO decisions, testing, and security. The DevSecOps pipeline and source code configuration management repository shall be fully accessible to the Government.
3. Leverage cloud-native architecture
  - a. Be browser-based and available to the JFC-level JEMSOC end-users on the Secret Internet Protocol Router Network (SIPRNET)
  - b. Leverage containerization and microservices to enable extensibility, interoperability, and scalability.
  - c. Be built and deployed to Open Container Initiative images/containers.
  - d. Successfully demonstrate ability to expose and consume data via public interfaces (e.g., REST APIs).
  - e. Be consistent with the applicable security guidance, including the Application Security and Development Security Technical Implementation Guide (STIG), the DOD Secure Cloud Computing Architecture, and the Cloud Computing Security Requirements Guide (SRG).
  - f. Shall be modular and extensible to enable migrations to other cloud hosting environments (e.g, DoD Joint Warfighting Cloud Capability)
4. Enable JFC-level JEMSOC end-users to coordinate, prioritize, integrate, synchronize, direct, and deconflict Service Component EMSO activities in their assigned joint operational areas across all domains and joint functions (as described in JP 5.0, JP 3-85, and referenced in the JEMSO Operational Employment Guide (22 March 2022)).
5. Integrate or interoperate with EMBM-SA architectural components, data and analytic microservices, and authorization and authentication architecture to the greatest extent possible. The prototype shall at a minimum, leverage existing EMBM-SA data services and data storage architecture and, if necessary, implement a supplemental data storage architecture. Integration and interoperability with EMBM-SA enhances performance, schedule, and cost efficiencies.

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6. Enable JFC-level JEMSOC end-users to execute Joint Planning (as described in JP 5.0, JP 3-85, and referenced in the JEMSO Operational Employment Guide (22 March 2022).)
  - a. Support the JFC-level JEMSOC end-users' role in the JPP process for (1) planning initiation, (2) mission analysis, (3) EMSO task development in support of COAs, (4) EMSO task analysis and wargaming, (5) EMSO task comparison, (6) EMSO task approval, and (7) plan or order development. The COAs amount to force-level maneuver in the 3-dimensional space and the EMS maneuver<sup>1</sup> of spectrum- dependent systems (SDSs) within those operations.
  - b. Enable JFC-level JEMSOC end-users to (1) define, (2) optimize, and (3) rate each COA.
  - c. Convert the EMS portion of the selected COA into the EMS maneuver spaces for the Service Components. These maneuver spaces shall be captured into a machine-readable set of data that will be provided via standards-based machine-to-machine interfaces to Service Component EMBM tools as part of EMSO plans and orders.
  - d. Service Components plan their operations and coordinate boundaries of their spectrum use with their peers. Uses of the EMS are not confined to the spatial limits of component operational areas. EMBM-DS prototype shall support aggregation, visualization, and analysis of Service Component EMSO plans and boundaries for the purpose of deconfliction and resourcing.
  - e. Support deconfliction of spectrum access when JFC-level JEMSOC end-users become aware of conflicts from peers who are unable to resolve the conflicts in their spectrum use boundaries, or the aggregate review identifies previously unknown conflicts.
7. Provide prototype capabilities for the JFC-level JEMSOC end-users to model and analyze multiple EMS maneuver plans in support of COAs that best accomplishes the JFC's intent based on the Commander's prioritization of mission essential task.
  - a. Build, import, display, save, and share aggregate models of (1) friendly, (2) neutral, and (3) adversary unit-level needs for EMS resource based on real- world information.
  - b. Build EMS maneuver plans in support of COAs capturing time and spatial variation in friendly unit-level requirements for EMS and anticipated neutral and adversary use of the EMS.
  - c. Provide techniques used to generate candidate EMS maneuver plans in support of COAs.
  - d. Predict outcomes of candidate EMS maneuver plans (taking into account potential adversary COAs).
  - e. Provide a capability to score, weigh, or otherwise logically compare COAs for the JFC-level JEMSOC end-users to determine which COAs achieve the best outcomes to meet the JFC's intent, based on risk and EMSO supportability.
  - f. Compute and display the aggregate interactions among SDSs.
  - g. Provide capability for assessing the interactions of all types of SDSs in DOD's inventory of deployed systems to include SDSs that utilize adaptive and smart technology (e.g., frequency hopping and software defined radios).
  - h. Provide capability for the JFC-level JEMSOC end-users to define operational pictures that display relevant views of EMSO effectiveness.
  - i. Compute conflicts and identify missions that are at risk.
  - j. Provide capabilities for the JFC-level JEMSOC end-users to modify the COA to mitigate risk or improve outcomes.
  - k. Provide measures that capture risk to the commander's prioritized missions.
  - l. Autonomously create user selected displays of critical differences in mission execution across the modeled COAs.

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<sup>1</sup> EMS Maneuver – The movement in three-dimensional positioning, time, and EMS operating parameters (e.g., frequency, power, modulation) to gain an advantage over the enemy. (JP 3-85)

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- m. Generate a means to export depiction of selected COA to be used to communicate intent.
- n. Provide capability for the JFC-level JEMSOC end-users to define the EMS maneuver space and assess the compatibility of systems that dynamically use the EMS.
- o. Capture in data the series of changes in EMS use across time that are anticipated to occur as part of EMS maneuver in planned EMSO.
- p. Provide capability to support multiple simultaneous analyses utilizing complex computations and save data for comparison.
- q. Provide data management capability that is sufficient for the anticipated large amounts of ingested and planning data.
- r. Provide capability with computational methods that will be scalable and generate analytical results across the anticipated quantity of SDSs and number of concurrent users at a rate that is relevant to support operational decision making at a JEMSOC.

### A.2: Mission and Outcome Framework

In addition to developing the prototype EMBM-DS capabilities above, the vendor shall:

1. Maintain high-quality software code that follows a consistent style, is easily understood, is well-documented, secure, and appropriately tested.
  - a. Test coverage should meet or exceed 80%.
  - b. Software is developed in accordance with established, language-specific coding standards and verified by automated linting.
  - c. Test code is written to be efficient and provide specific, useful assertions.
2. Implement DevSecOps
  - a. EMBM-DS prototype shall be developed using agile practices and coding principles that support flexibility and growth to meet future, and currently unforeseen, warfighter/customer needs.
  - b. EMBM-DS prototype software development process shall provide the flexibility for CI/CD to iteratively and continuously improve and deliver warfighting capability.
  - c. EMBM-DS prototype software development process shall implement an agile software development and testing approach that integrates developers, operators, and cybersecurity.
  - d. The vendor shall implement an Agile software development process consistent with industry best-practices. Development processes shall be capable of delivering frequent software releases to the prototype environment.
3. Provide the Government with full access to all vendor development workflows, environments, development tools, configuration management source code repositories, and artifacts.
4. The vendor shall maintain a Software Bill of Materials (SBOM), a formal record containing the details and supply chain relationships of the components used, including 3rd party dependencies.
5. Develop and implement an agile approach for continuous user engagement and feedback, to include (1) effective stakeholder management, (2) backlog management, (3) communicating technical details to key stakeholders, and (4) gathering requirements across the entire stakeholder community
6. Provide a capability that appropriately tags and securely manages data in accordance with classification and infosec guidance to enable a future Cross Domain implementation.
7. Provide the Government with full ownership of the source code EMBM-DS prototype, void of any proprietary dependencies.
8. Prepare the prototype for a successful transition to a production EMBM-DS System.



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This includes providing a detailed ***Production Implementation and Approach plan*** for the production OT development beyond the prototype phase prior to the end of the period of performance. The plan shall include:

- a. Description of how the prototype system will be adapted to operate in an environment that is disconnected, denied, intermittent and/or has limited bandwidth (DDIL). The Joint EMBM capabilities must be able to operate in a DDIL environment that allows users to access the full features of Joint EMBM when cloud connectivity is available and remain operationally effective for JFC- level JEMSOC end-users when network access is disconnected, denied, intermittent and/or has limited bandwidth.
- b. Architectural design details that demonstrate how the prototype could be extended to meet the full set of EMBM-J requirements, as well as integrate and/or interface with future EMBM-J components (like EMBM Command and Control (C2) and third-party capabilities.
- c. Description of potential solutions for implementing interoperability and information exchanges with Component, Service and Coalition capabilities and systems, including:
  - i. Automated machine-to-machine exchange of plans and orders with machine EMS maneuver spaces.
  - ii. Automated ingestion and correlation of Service Component data with the EMOE.
  - iii. Automated ingestion of component EMSO plans for subsequent conflict analysis and deconfliction.
  - iv. Automated machine-to-machine exchange of information with Service EMBM capabilities in order to build comprehensive EMOE tactical pictures with linkages to Service EMBM capabilities that provide situational awareness/connection with tactical sensors.
  - v. Workflows and advanced capabilities for EMS conflict analysis and deconfliction across multiple plans received from components and coalition partners.
  - vi. Automated machine-to-machine exchanges of joint products in support of CCMD and JTF operations at the JFC-level.
  - vii. Approaches for Mission Partner Environment (MPE) and other coalition network integration.
    1. Machine-to-machine information sharing with coalition partners for the purpose of coordinating and deconflicting allied operations.
- d. Approach to extend the prototype data model and computational methods to manage and assess the impacts of deploying dynamic spectrum access (DSA) SDSs. Approach shall include:
  - i. The data necessary to collect on these and other SDSs to support assessing compatibility
  - ii. The means to capture the ability of SDSs to dynamically respond to observed EMS use and adapt so that these adaptations can be assessed as part of EMOE analysis.
  - iii. The criteria that indicate whether a DSA SDS would cause harmful interference to other SDSs; and, vice versa, the criteria that indicates whether DSA SDSs can operate without harmful interference from other SDSs
  - iv. A description of the computations that are performed to determine if the criteria is met.
- e. Address future (i.e., post-prototype) Cross Domain Solution (CDS) needs that enables the exchange of information across multiple security levels, and the ability to process and store classified information at multiple security levels.
  - i. Enable deployment in a Joint Worldwide Intelligence Communication System (JWICS) leveraging CDS for data population and transfer between SECRET and TOP SECRET.
  - ii. APIs to support Cross Domain implementation for both streaming and static

data.

### A.3 Prototype Design Considerations for Production Requirements

The vendor shall consider the following production phase requirements as part of its prototype design. The objective is not to satisfy these requirements as part of the prototype but to design with the knowledge and best effort, not to preclude these requirements from being added to the system as part of a follow-on effort.

It is anticipated that the Production System Requirements shall include/address the following:

- 1) Software architecture shall support operations in DDIL environments post-prototype.
- 2) Automated machine-to-machine exchange of EMOE data and models with enterprise systems aligned with Joint All- domain Command and Control (JADC2) data standards requirements.
- 3) Address Future Cross Domain Solution (CDS) needs that enables the exchange of information across multiple security levels, and the ability to process and store classified information at multiple security levels.
  - a. Enable deployment in a Joint Worldwide Intelligence Communication System (JWICS) leveraging CDS for data population and transfer between SECRET and TOP SECRET.
  - b. APIs to support Cross Domain implementation for both streaming and static data.
  - c. Mission Partner Environment (MPE) and other coalition network integration.
  - d. Machine-to-machine information sharing with coalition partners for the purpose of coordinating and deconflicting allied operations.
- 4) Future implementation of a Zero Trust Architecture, as described in National institute of standards and technology (NIST) Special Publication (SP) 800-207. The prototype shall be developed and operated using risk-based, cybersecurity-informed engineering and leverage widely adopted best practices
- 5) Training capabilities will be developed during the EMBM-DS production phase.

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**APPENDIX B: GOVERNMENT FURNISHINGS, BIDDER'S LIBRARY, AND REFERENCES**

The complete bidder's library will be made available to vendor POCs upon signature of a

Non-Disclosure Agreement for accessing the bidders' library. Please find the NDA at Appendix C and submit to the Government POCs (Agreements Officer, Agreements Specialist and [disa.scott.ditco.mbx.pl84-other-transaction-authority@mail.mil](mailto:disa.scott.ditco.mbx.pl84-other-transaction-authority@mail.mil)) with the subject "EMBM-DS Bidders Library Access"

- Information Systems Capability Development Document (IS-CDD) For Electromagnetic Battle Management (EMBM), 30 October 2020
- Operational Employment Guide, Joint Electromagnetic Spectrum Operations Cell, 22 March 2022
- EMBM-SA Architectural Diagram
- EMBM-SA Boundary Diagram
- EMBM-SA Architecture Overview
- JEWEC provided EMBM-DS requirements decomposition – to help clarify SON requirements.
- NGA Fielding Process
- NGA RMF Implementation Guide
- NGA Security Onboarding Technical Exchange Meeting

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**APPENDIX C: BIDDER’S LIBRARY ACCESS NON-DISCLOSURE AGREEMENT**

*Note: The complete bidder’s library will be made available to interested vendors upon signature of a Non-Disclosure Agreement for accessing the bidders’ library. Please find the NDA at Appendix C and submit to, Agreements Officer, Mr. Craig Carlton, [craig.j.carlton.civ@mail.mil](mailto:craig.j.carlton.civ@mail.mil), Agreements Specialist, Mr. Jeremy Markusic, [jeremy.d.markusic.civ@mail.mil](mailto:jeremy.d.markusic.civ@mail.mil), and the Other Transaction Authority inbox, [disa.scott.ditco.mbx.pl84-other-transaction-authority@mail.mil](mailto:disa.scott.ditco.mbx.pl84-other-transaction-authority@mail.mil) with the subject “EMBM-DS Bidders Library Access”*

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Bidders Library  
NON-DISCLOSURE AGREEMENT (NDA)**

Name: \_\_\_\_\_ Company: \_\_\_\_\_

1. I acknowledge I have been granted access to Controlled Unclassified and non-public data and files pertaining to the EMBM-DS Other Transaction Authority (OTA) Request for Initial Presentation Invitation. I am aware that unauthorized disclosure of the software, data or files could subject me to prosecution under applicable laws, and I must sufficiently protect the software, data and files, and software analysis results from unauthorized disclosure. This includes using encryption when transferring information over networks (e.g., Use industry standard email encryption).
2. I do solemnly swear or affirm that I will not divulge, publish, or reveal by any other means, such software, data and files or information obtained by software analysis, such as software vulnerabilities, unless specifically authorized in writing in each and every case by the Agreements Officer. I take this obligation freely, without any mental reservation or purpose of evasion and in the absence of duress.
3. I agree to return any and all EMBM-DS OTA request for initial presentation invitation computer media (e.g., Digital Video Disks (DVDs)) I receive to the Agreements Officer, and permanently destroy all electronic copies of all EMBM-DS software, data and files I receive for this solicitation within five days after the OTA award decision. I agree to take the steps necessary to ensure none of the EMBM-DS software, data, files or software analysis results can be recreated or recovered after electronic deletion.
4. I acknowledge the software, data, or files I receive, or software analysis results I generate may only be given to persons who have signed this NDA and been specifically granted access to the EMBM-DS OTA solicitation information. I acknowledge the software, data, files and analysis results may not be divulged further without specific written approval from the Agreements Officer.
5. Signing this Agreement does not bar disclosures to the Department of Justice that are essential to reporting substantial violations of law and this Agreement does not prohibit disclosures which are required under order of a court of competent jurisdiction. These provisions are consistent with and do not supersede, conflict with, or otherwise alter the obligations, rights, or liabilities created by existing statutes or Executive orders.

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

## APPENDIX D: PHASE II – THE CHALLENGE DEMONSTRATION PHASE

The Challenge-Based Acquisition process includes a demonstration phase, as indicated by section 1.5 of this Request for Initial Presentation. The demonstration approach depicted herein is intended to provide clarity into the scope and core objectives of the Challenge Demonstration phase. These demonstration elements are DRAFT and are subject to change after the release of the Request for Initial Presentation invitation.

The finalized demonstration information (including the demonstration schedule, scenarios, and evaluation criteria) will be provided as part of an invitation to challenges, for those vendors selected to advance to Phase II. The Government reserves the right to update the demonstration cases, objectives, and any other characteristics of the scenarios until the invitation to challenges is released.

### Challenge Demonstration Ground Rules:

1. Scenarios are based on the core capabilities of a successful EMBM-DS; vendors are expected to demonstrate their ability to meet such capabilities.
2. Demonstrations of abilities, tabletops, and interactive content generally highlight vendor abilities better than a presentation. Vendors are encouraged to tailor responses to the scenarios accordingly.
3. Vendors will have time limits to deliver responses to the demonstration scenarios and articulate their ability to meet and/or exceed the Government's requirements.
4. Final scenarios will include a scenario description, scenario evaluation criteria, and Government objectives for each scenario.
5. Vendors are highly encouraged to provide the key personnel that they propose to lead their effort in supporting responses to the demonstration scenarios.
6. Each scenario will include a technical question-and-answer period where the Government will ask follow-up questions about the demonstration.

Projected Scenario Focal Points: The Government anticipates 3-4 scenarios that enable a vendor to demonstrate its ability to meet EMBM-DS requirements. These scenarios will take place during a "Demonstration Day" that is expected to last between 4 and 6 hours, enabling vendor's team to complete all demonstration scenarios. Scenarios will focus on several core competencies and technical objectives:

### Objective Area 1: Enterprise Services

- Does the proposed EMBM-DS solution successfully meet the requirements of the SoN?
- Is the proposed EMBM-DS solution capable of successfully deploying on SIPRNET?
- Is the proposed solution capable of supporting the number of concurrent users (500 concurrent, 200 concurrent computations) required?

### Objective Area 2: Software Development

- How does the vendor establish their DevSecOps pipeline or leverage enterprise services for DevSecOps?
- Does the vendor's solution leverage containerization, microservices, open application programming interface (APIs), and DevSecOps to enable extensibility, interoperability, and scalability?
- Does the vendor's solution enable adaptation and evolution of the architecture to integrate 3rd party services, evolve the workflow, and adapt to new sharing scenarios?
- Does the proposed EMBM-DS solution use an agile development process capable of supporting iterative releases and a continuous ATO?
- How will user satisfaction be measured and facilitated?

### Objective Area 3: JTF JEMSO Applied Knowledge

- How does the vendor's proposed solution support the following: Support the JFC-level JEMSOC end-users' role in the JPP process for (1) planning initiation, (2) mission analysis, (3) EMSO task development in support of COAs, (4) EMSO task analysis and wargaming, (5) EMSO task comparison, (6) EMSO task approval, and (7) plan or order development. The EMSO tasks in support of COAs amount to force-level maneuver in the 3-dimensional space and the EMS maneuver of spectrum-dependent systems (SDSs) within those operations.

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- How does the vendor's proposed solution support the following: Support JFC-level JEMSOC end-users to (1) define, (2) optimize, and (3) rate each EMSO tasks in support of each COA.
- How does the proposed solution convert COAs into Maneuver Spaces and how does that process work?
- How does the proposed solution enable JFC-level JEMSOC end-users to model and analyze multiple EMS maneuver plans in support of COAs?

**Objective Area 4: Architecture**

- How does the proposed solution address machine-to-machine exchange of COAs and EMS maneuver space information?
- Does the vendor's solution support a cloud-based deployment into the NGA commercial cloud services environment? Is an alternative environment justifiable and does it benefit the Government?
- How is the prototype capability integrated/interoperable with EMBM-SA to capitalize on performance, schedule, and cost efficiencies?
- How does the prototype capability leverage the EMBM-SA data lake?
- Does the vendor's solution's architecture align with needed attributes: Broad Network Access, Rapid Elasticity, Measured Service (ref. NIST SP 800-145 The NIST Definition of Cloud Computing)?

**Objective Area 5: Affordability**

- Is the proposed solution affordable?
- Are cost savings likely to be realized through integration or interoperability with EMBM-SA?
- Does the proposed solution take advantage of cloud capabilities such as elastic cloud computing to support scaling (particularly individual components) without redesign?
- Does the proposed solution have a significant annual software licensing maintenance cost?

**Objective Area 6: Risk Mitigation**

- Does the proposed solution mitigate risks that the Government identified from the vendor's initial presentation?
- Does the proposed solution sufficiently reuse existing technology to reduce cost/schedule risk?
- Are the technology readiness levels for proposed existing technology products at or above level 7?
- Does the proposed subcontracting partnership include adequate technical and domain expertise?
- Does the prime have proven system for managing the number of proposed sub-vendors?

**APPENDIX E: REQUEST FOR INITIAL PRESENTATION SUPPLEMENTS**

**Submitter Statement**

Each participant (prime vendor and each subvendor) shall complete the submitter statement below. The statement shall be included as an attachment to the presentation.

I, *[insert submitter’s full name]*, of *[insert full postal address]*, do hereby declare that the *[insert name]* prototype, that I have submitted, known as *[insert name]*, is my own original work, or if submitted jointly with others, is the original work of the joint submitters.

I further declare that *[check one]*:

I do not hold and do not intend to hold any patent or patent application with a claim which may cover the system prototype that I have submitted, known as *[insert name of system]*;


**OR** *[check one or both of the following]*:

to the best of my knowledge, the practice of the *[insert name of system]* that I have submitted, known as *[insert name of system]*, may be covered by the following U.S. and/or foreign patents: *[describe and enumerate or state “none” if applicable]*;

I do hereby declare that, to the best of my knowledge, the following pending U.S. and/or foreign patent applications may cover the practice of my submitted *[insert name of system]* *[describe and enumerate or state “none” if applicable]*.

I certify that, to the best of my knowledge, I have fully disclosed all patents and patent applications, which may cover my *[insert name of system]*.

I do hereby agree to provide the statements required by Section 2.3.2 and 2.3.3, below, for any patent or patent application identified to cover the practice of my *[insert name of system]* and the right to use such for the purposes of the evaluation process.

<b>Signature</b> (electronic signature is acceptable)	
<b>Name</b>	<i>[Insert Name of Representative]</i>
<b>Title</b>	<i>[Insert Title of Representative]</i>
<b>Date</b>	<i>[Insert Date of Signature]</i>

**Patent Owner(s) Statement**

Each participant (prime vendor and each of the sub-vendors) shall complete the Patent Owner(s) statement below. The statement shall be included as an attachment to the presentation.

If there are any patents (or patent applications) identified by the submitter, including those held by the submitter, the following statement must be signed by each owner, or each owner’s authorized representative, of each patent and patent application identified.

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I, *[insert full name]*, of *[insert full postal address]*, am the owner or authorized representative of the owner *[print full name, if different than the signer]* of the following patent(s) and/or patent application(s): *[enumerate]*, and do hereby commit and agree to grant to any interested party on a worldwide basis, if the system known as *[insert name of system]* is selected for the DoD prototype, in consideration of its evaluation and selection, a non-exclusive license for the purpose of implementing standards or algorithms *[check one]*:

without compensation and under reasonable terms and conditions that are demonstrably free of any unfair discrimination,

**OR**


under reasonable terms and conditions (identified in section 3.4.6 –Proposed Data Rights Assertion) that are demonstrably free of any unfair discrimination.

I further do hereby commit and agree to license such party on the same basis with respect to any other patent application or patent hereafter granted to me, or owned or controlled by me, that is or may be necessary for the purpose of evaluating the proposed system prototype. Any future follow-on Production Contract could/will require re-negotiated terms and conditions.

I further do hereby commit and agree that I will include, in any documents transferring ownership of each patent and patent application, provisions to ensure that the commitments and assurances made by me are binding on the transferee and any future transferee.

I further do hereby commit and agree that these commitments and assurances are intended by me to be binding on successors-in-interest of each patent and patent application, regardless of whether such provisions are included in the relevant transfer documents.

I further do hereby grant to the U.S. Government, during the evaluation process, and during the lifetime of the standard, a nonexclusive, non-transferrable, irrevocable, paid-up worldwide license solely for the purpose of modifying my submitted system’s specifications (e.g., to protect against a newly discovered vulnerability) for incorporation into the prototype efforts.

<b>Signature</b> (electronic signature is acceptable)	
<b>Name</b>	<i>[Insert Name of Representative]</i>
<b>Title</b>	<i>[Insert Title of Representative]</i>
<b>Date</b>	<i>[Insert Date of Signature]</i>



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**Reference Owner(s) Statement**

Each participant (prime vendor and each subvendor) shall complete the Reference Statement below. The statement shall be included as an attachment to the initial presentation and will not count toward the page limit.

I, *[insert full name]*, *[insert full postal address]*, am the owner or authorized representative of the owner *[insert full name, if different than the signer]* of the submitted reference *[insert name of process] specifications* and hereby grant the U.S. Government and any interested party the right to reproduce, prepare derivative works based upon, distribute copies of, and display such implementations for the purposes of the *[insert name of process]* process, and if the corresponding *[insert system name]* is selected for *[insert name]* prototype, notwithstanding that the implementations may be copyrighted or copyrightable.

<b>Signature</b> (electronic signature is acceptable)	
<b>Name</b>	<i>[Insert Name of Representative]</i>
<b>Title</b>	<i>[Insert Title of Representative]</i>
<b>Date</b>	<i>[Insert Date of Signature]</i>

**Affirmation of Business Status Certification**

Each participant (prime vendor and each subvendor) shall complete the certification below. The certification shall be included as an attachment to the initial presentation and will not count toward the page limit. Please note that some sections in the certification may be left blank due to the type of business completing this form (e.g., non-traditional contractor).

Please note that to be eligible to submit a response to the Request for Initial Presentation (RFIP), vendors must meet the requirements outlined in 10 U.S.C Section 4022b(d)(1). Vendors shall explain in their Phase II – Challenge Demonstration, explanation is not required for the Initial Presentation, submission how they will meet these statutory requirements. The page limitation for this submission shall be two (2) pages for the prime vendor and two (2) pages for each subvendor. Failure to provide the required explanation may result in your initial presentation not being considered for this OTA effort.

<b>Participant Name</b>	<i>[Insert Participant Name]</i>
<b>Proposed <u>North American Industry Classification System (NAICS) Code</u></b>	<i>[Insert NAICS Code]</i>

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<b>Industry Size Standard</b>	<i>[Check one of the following boxes]</i> <input type="checkbox"/> <b>Small</b> <input type="checkbox"/> <b>Large</b> <input type="checkbox"/> <b>Federally Funded Research &amp; Development Center</b>
<b>Data Universal Numbering Systems (DUNS) Number</b>	<i>[Insert DUNS Number]</i>
<b>Commercial &amp; Government Entity (CAGE) Code</b>	<i>[Insert CAGE Code]</i>
<b>Active System for Award Management (SAM) Registration</b>	<i>[Check one of the following boxes and insert date]</i> <input type="checkbox"/> <b>Yes</b> <input type="checkbox"/> <b>No</b> <b>Expiration Date:</b>
<b>Address 1</b>	<i>[Insert Address Number and Street]</i>
<b>Address 2</b>	<i>[Insert suite, office, etc. Number]</i>
<b>City/State/Zip Code</b>	<i>[Insert City, State, Zip Code]</i>
<b>Point of Contact (POC) Name/Title</b>	<i>[Insert POC Name and Title]</i>
<b>POC Phone/Email</b>	<i>[Insert POC Phone and Email]</i>

*[Check one of the following boxes:]*

**Nontraditional Defense Contractor (NDC):** A NDC is an entity that is not currently performing and has not performed, for at least the one-year period preceding the issuance of this Request for Initial Presentation Papers by the DoD, 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 of the U.S. Code and the regulations implementing such section. All small businesses are considered NDCs. A small business is a business concern as defined under section 3 of the Small Business Act (15 U.S.C. 632). To be considered a small business for the purposes of this RWP, a concern must qualify as a small business under the size standard for the North American Industry Classification System (NAICS) code, as described at 13 C.F.R. 121.201 and the proposed NAICS code above.

**Traditional Defense Contractor:** A traditional defense contractor is an entity that does not meet the definition of a NDC. Any traditional defense contractors must comply with 10 U.S.C Section 4022b(d)(1)(C) to be eligible to submit an RWP.

This is to certify that the above is accurate, complete, and current as of *[MM/DD/YYYY]* for *[insert RWP title]*.

<b>Signature</b> (electronic signature is acceptable)	
<b>Name</b>	<i>[Insert Name of Representative]</i>

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<b>Title</b>	<i>[Insert Title of Representative]</i>
<b>Date</b>	<i>[Insert Date of Signature]</i>

**Conflict of Interest (COI)**

Each vendor (prime vendor and each subvendor) shall specifically state in the space below, whether there are any potential, actual or perceptions of conflicts of interest (COI) involving this OTA. If a vendor identifies a potential/actual or a perception of COI, then the vendor shall submit a statement with the initial presentation paper explaining how the COI will be mitigated and/or avoided. If the Government determines a COI (potential or actual) or a perception of COI exists and was not identified by the vendor, any vendor submission may be found non-compliant and inadequate for further evaluation.