

Pre-Announcement, July 2024



PRE-ANNOUNCEMENT

“Development of an Expeditionary Medical (EXMED) mobile Command, Control, Communications, and Computers IT (C4IT) solution for integration into Expeditionary Fast Transport (T-EPF) Flight II”

The Medical Technology Enterprise Consortium (MTEC) is excited to post this pre-announcement for a Request for Project Proposals (RPP) supporting the development of an expeditionary medical (EXMED) command, control, communications, and computer (C4) information technology IT (C4IT) prototype that is authorized to connect to Consolidated Afloat Networks and Enterprise Services (CANES) Network Management System, authorized to operate on an Expeditionary Fast Transport (EPF) Flight II, and integrates/interfaces with Joint Operational Medicine Information Systems (JOMIS) solutions.

Specifically, the government is looking to further the development of uninterrupted and secure health care delivery (HCD) within medical units and throughout the continuum, from en route care provided during patient movement (PM) to Role 3 (hospital) care. This effort aims to develop an EXMED C4IT prototype package that enables interoperability across all medical and associated administrative (e.g., medical command and control or MEDC2, medical logistics or MEDLOG) functions, securely connecting medical and support endpoints (e.g., laptops, mobile x-rays, patient monitoring devices, printers) to each other (local network) and to the Department of Defense (DOD) health enterprise.

Due to the nature and urgency of this effort, MTEC anticipates using an accelerated timeline to award with an open period of approximately 21 days for Offerors to submit their Full Proposals (including full cost proposals) in accordance with requirements set forth in the upcoming Request for Project Proposals. Interested Offerors are encouraged to reach out to the point-of-contact listed herein with questions and should consider working on their proposals now using the information provided in this pre-announcement.

Objective:

The objective of this effort is to develop expeditionary and interoperable information technology to enable health care delivery, medical command and control, medical logistics, and patient movement in austere and contested environments.

Solution Requirements:

The U.S. Government is seeking a solution capable of satisfying the following requirements:

- (a) Design, specifying mobile and rugged EXMED C4IT, including:

Pre-Announcement, July 2024

1. Structure: hardened containers, hardened enclosures, network components, endpoints, dependencies, and connectivity
 2. Functionality: security, enterprise and standalone operations, and wired and wireless connectivity
 3. Interfaces with JOMIS, including solutions requiring client applications and browser-enabled access
 4. Security measures
 5. Standards and protocols
 6. Design products must include content and be formatted such that they facilitate executing the Risk Management Framework (obtaining an authorization to operate or ATO); Offerors must be familiar with and capable of executing the process to obtain an ATO
- (b) Prototype implementation planning; includes risks, mitigations, timeline, cost, and critical design aspects
- (c) Prototype development. Prototype must:
1. Implement approved design
 2. Be transportable in and include an American Bureau of Shipping (ABS) certified and hardened container (10-foot International Organization for Standardization (ISO) or smaller comparable container)
 3. Include
 - i. Mobile network infrastructure, including a rugged network enclosure
 - ii. Endpoints, minimally:
 - a. Twenty mobile computing devices: a mix of laptops, tablets, and thin-clients
 - b. Three printing and scanning devices
 - c. One mobile x-ray
 - d. One mobile diagnostic laboratory device
 - e. Patient monitoring equipment for three patients
- (d) Test planning and execution; includes reporting actual characteristics (e.g., security, interoperability, performance) and improvements required
- (e) Transition planning; includes timeline, production and sustainment costs, production risks
- (f) Required deliverables include one prototype as described herein, design and plans specified herein, regular progress reports (with risks, cost and schedule impacts, mitigations), and a final report (with findings and recommendations).

Additional Considerations

System design should be modular, scalable, and extensible. Offerors should consider the following activities to enable future-forward design:

- (a) Design should maximize innovative approaches, extensibility, and interoperability.

Pre-Announcement, July 2024

1. In addition to implementing standards/specifications to interoperate with JOMIS, C4IT design should enable exchange consistent with standards developed by organizations like Digital Imaging and Communications in Medicine (DICOM), Health Level Seven International (HL7), and National Council for Prescription Drug Programs (NCPDP)
 2. Design should integrate technologies like machine learning and data lakes to collect and process unstructured data and structured data of various formats
 3. Design should include creative approaches to enable rapid integration of new endpoints; endpoints may be vastly different in purpose and construct
- (b) Design should enable operations in military environments/conditions, including operations in austere and contested environments (e.g., little/no communications/connectivity provided by other organizations) and operations ashore and on aircraft and ships. Consider projected operational environments of Navy EXMED units such as expeditionary medical units (EMU) and related threats projected for those environments, including but not limited to cyber-attacks, electromagnetic attack, and other threats that may result in disruption or degradation of C4 capabilities (e.g., effects of chemical, biological, radiological, and nuclear [CBRN] events).
1. Design should enable full interoperability and integration with JOMIS capabilities, including:
 - i. Operational Medicine Care Delivery Platform (OpMed CDP)
 - ii. Military Health System (MHS) GENESIS Theater (MHSG-T)
 - iii. Operational Medicine Data System (OMDS)
 - iv. Medical Common Operational Picture (MedCOP)
 2. Design should allow modifications to
 - i. Scale the system up (500-person team) or down (2-person team)
 - ii. Integrate new/alternative endpoints
 - iii. Employ new/alternative information exchange mechanisms to ensure interoperability with latest DOD enterprise information systems (IS), including administrative (i.e., non-health) IS.
 3. Design must facilitate obtaining an ATO and approval to connect (ATC). See DOD cybersecurity per DODI 8510.01 regarding RMF and ATOs. Design must enable operations on DOD networks afloat and ashore.

Potential Follow-on Tasks

Under awards resulting from this effort, there is the potential for award of one or more non-competitive follow-on tasks based on the success of the project (subject to change depending upon Government review of completed work and successful progression of milestones). Potential follow-on work may be awarded based on the advancement in prototype maturity during the initial Period of Performance. Future efforts may include, but are not limited to, the following:

- Optimize prototypes to ensure suitability in all projected operational environments, including:
 - Enhance survivability
 - Optimize performance
 - Improve mobility
 - Address security vulnerabilities
 - Ensure interoperability with additional host units and platforms
- Modernize the solution to:

Pre-Announcement, July 2024

- Add interfaces to new enterprise information systems that facilitate MEDC2, MEDLOG, PM, and HCD
- Incorporate new medical devices
- Continue to improve the timeliness and accuracy of information collection with automation
- Optimize the prototype to support prototypes production
- Modernize functionality to evolve C4IT beyond an IT package to a full-fledged expeditionary medical data/knowledge management solution that complements JOMIS and other enterprise capabilities.

POTENTIAL FUNDING AVAILABILITY AND PERIOD OF PERFORMANCE:

The U.S. Government (USG) initially has **up to \$2.075 million (M)** for this upcoming program, **with the likelihood for additional funding to become available**. The USG anticipates applying additional dollars (if available) for follow-on efforts via post award modification to any resultant award(s) after the evaluation and acceptance of work and cost plan. Dependent on the results and deliverables, additional time may be added to the period of performance for non-competitive follow-on tasks.

MTEC expects to make a **single award** to a qualified Offeror to accomplish the scope of work. If a single proposal is unable to sufficiently address the entire scope of the RPP, several Offerors may be asked to work together in a collaborative manner. See the “MTEC Member Teaming” section below for more details.

The Period of Performance is not to exceed **18 months, however faster timelines are highly encouraged**.

ACQUISITION APPROACH:

This upcoming RPP will be conducted using a single-staged approach. Offerors will be invited to submit Full Proposals using the mandatory format provided in the upcoming RPP. **Full cost proposals will also be required at the time of submission**. Information on Cost Proposal formats can be found in the **MTEC Proposal Preparation Guide (PPG)**, which is available on the MTEC Members-Only website (<https://private.mtec-sc.org/>). The Government will evaluate Proposals submitted and make a selection based on the solution(s) that best meet their current priorities using the evaluation criteria described in the upcoming RPP.

This upcoming RPP will be posted to the MTEC website (mtec-sc.org) and [SAM.gov](https://sam.gov) to notify interested parties. The RPP is expected to be released as soon as possible. Because of the nature and urgency of the requirements set forth in this upcoming RPP, **MTEC will be employing a shortened open period for proposal submissions of approximately 21 days**. Due to the accelerated approach to award for this RPP, **Offerors are encouraged to begin working on their Full Proposal using the information and suggested templates found within the PPG on the members-only website**.

Pre-Announcement, July 2024

MTEC membership is required for Proposal submission in response to this upcoming MTEC RPP. If interested in submitting a proposal to this effort, please contact Dr. Chuck Hutti (chuck.hutti@ati.org) or visit the MTEC website (<http://mtec-sc.org/how-to-join/>) to learn more about membership.

MTEC MEMBER TEAMING:

While teaming is not required for this effort, Offerors are encouraged to consider teaming during the proposal preparation period (prior to Proposal submission) if they cannot address the full scope of technical requirements of the RPP or otherwise believe a team may be beneficial to the Government. The following resources may help prime selected performer(s) provide a more complete team for this requested scope of work:

- **MTEC M-Corps** is a network of subject matter experts and service providers to help MTEC members address the business, technical, and regulatory challenges associated with medical product development. Please visit <https://www.mtec-sc.org/m-corps/> for details on current partners
- **MTEC Database Collaboration Tool** to help identify potential teaming partners among other MTEC members. It can be accessed via the “MTEC Profiles Site” tab on the [MTEC members-only website](#).

MTEC:

The MTEC mission is to assist the U.S. Army Medical Research and Development Command (USAMRDC) by providing cutting-edge technologies and supporting life cycle management to transition medical solutions to industry that protect, treat, and optimize Warfighters’ health and performance across the full spectrum of military operations. MTEC is a biomedical technology consortium collaborating with multiple government agencies under a 10-year renewable Other Transaction Agreement (OTA), Agreement No. W81XWH-15-9-0001, with the U.S. Army Medical Research Acquisition Activity (USAMRAA). MTEC is currently recruiting a broad and diverse membership that includes representatives from large businesses, small businesses, “nontraditional” defense contractors, academic research institutions and not-for-profit organizations.

POINT OF CONTACT:

For inquiries regarding this pre-announcement, please direct your correspondence to Dr. Chuck Hutti, MTEC Biomedical Research Associate, chuck.hutti@ati.org.

Sincerely,

MTEC Team

