



STATE OF MARYLAND

**REQUEST FOR INFORMATION (RFI)
UNMANNED AERIAL VEHICLE DETECTION AND RESPONSE
SYSTEM**

RFI NUMBER [RFI-DRONEFY18]

ISSUED BY:

DEPARTMENT OF INFORMATION TECHNOLOGY (DOIT)

ISSUE DATE: [APRIL 19, 2018]

RESPONSE DUE DATE: [MAY 09, 2018]

STATE OF MARYLAND
DEPARTMENT OF INFORMATION TECHNOLOGY (DOIT)
KEY INFORMATION SUMMARY SHEET

Request for Information	Unmanned Aerial Vehicle Detection and Response System
RFI Number:	RFI-DRONEFY18
RFI Issue Date:	April 19, 2018
RFI Issuing Agency:	Department of Information Technology (DoIT or the "Issuer")
Primary Point of Contact: e-mail: Office Phone:	Irene Mathis irene.mathis@maryland.gov 410-697-9723
Questions Due Date and Time	April 26, 2018 2:00PM Local Time
Response Due Date and Time	May 09, 2018 2:00PM Local Time

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1 Key RFI Information

1.1 Purpose

The purpose of this RFI, which is not a solicitation to procure, is for the Department of Information Technology (“DoIT” or the “Issuer”) to conduct market research to determine the availability of commercial sources for Unmanned Aerial Vehicle Detection and Response System (“System”) and request relevant information to determine industry capability to provide those systems.

This RFI contains preliminary information to serve as a platform to initiate discussion with the vendor community. The requirements in this RFI are in no way final and are in no way a representation of that which may be contained in a Request for Proposal (“RFP”), Invitation for Bid (“IFB”), Purchase Order RFP (“PORFP”), Task Order RFP (“TORFP”) or other procurement vehicle. This issuance does not constitute a commitment to issue a request for bids, award a contract, or pay any costs incurred in preparation of a response to this request.

Furthermore, the Issuer requires that all responding vendors abstain from providing any quotes or bids in response to this RFI.

Any information received in response to this RFI will assist the Issuer in collecting information that may be used at a future date for a procurement. A submission in response to this RFI does not guarantee that the respondent will be included in any subsequent procurement. Likewise, a non-submission in response to this RFI does not preclude a recipient or vendor from inclusion in any future procurement.

1.2 Issuing Office and Procurement Officer

This RFI is issued by the office listed below. The indicated Procurement Officer is the sole point of contact for this RFI. Please refer all inquiries and submit your response to the Procurement Officer.

Agency	Department of Information Technology
Location	100 Community Place Crownsville MD 21032
Procurement Officer	Irene Mathis
Email	irene.mathis@maryland.gov
eProcurement Posting	https://emaryland.buyspeed.com/bs/ http://doit.maryland.gov/contracts/Pages/bids.aspx

1.3 Key Dates

Issued Date	4/19/2018
Questions Due Date	4/26/2018 2:00PM
Response Due Date	5/9/2018 2:00PM

1.4 Instructions to Respondents

All interested parties are requested to provide written responses to Section 3 of this RFI based upon the Key Dates requirements.

The group reviewing the RFI responses may seek further clarification from respondents. This clarification may be requested in the form of verbal communications, in-person meetings, telephone, hand written correspondence, or email communication.

Respondents to this RFI should NOT include any pricing information in their responses.

1.5 Response Submittal

1.5.1 Provide no pricing information in the Response.

1.5.2 Respondents may submit information by electronic means as described:

- A. Electronic means includes e-mail to the Procurement Officer address listed on the Key Information Summary Sheet. All response e-mails shall be sent with password protection.
- B. The State has established the following procedure to restrict access to submissions received electronically: Respondents will provide a password to DoIT upon request
- C. The Procurement Officer will not accept submissions after the date and exact time stated in the Key Information Summary Sheet. The date and time of submission is determined by the date and time of arrival in the Procurement Officer's e-mail box. Time stamps on outgoing email shall not be accepted.
- D. Submissions via email must not exceed 25 MB. If a submission exceeds this size, split the submission into two or more parts and include the appropriate part number in the subject (e.g., part 1 of 2) after the subject line information below.
- E. The e-mail submission subject line shall state RFI-DRONEFY18.
- F. Responses should attempt to remain within a 15-page limit for direct responses to requested information. Responses should include any material or source references in the RFI response; this reference material will not count against the 15-page limit. Submissions should also include additional product and service specifications for DoIT to reference as needed.
- G. Cover letters and extraneous materials (brochures, etc.) will not be considered as part of the page count.
- H. Please refer to specific RFI questions by number in all responses.
- I. FACSIMILE SUBMISSIONS WILL NOT BE ACCEPTED.

Questions or clarifications to this RFI must be received via email to the Procurement Officer cited in **Section 1.2** no later than **April 19, 2018 at 2:00pm**. The opportunity for clarification of this RFI will not change the submission deadline date identified in **Section 1.3**. All questions and answers will be made available to all respondents in a FAQ format via an amendment to this RFI and may be subject to the Public Records Act.

DISCLAIMER: READ BEFORE RESPONDING TO THIS RFI

DoIT is conducting market research as part of its planning for the potential acquisition of an Unmanned Aerial Vehicle Detection and Response System ("System").

Responses to this RFI are not offers and cannot be accepted by DoIT for the basis of forming a binding contract.

Respondents are advised that DoIT will not pay for any information or administrative cost incurred in response to this RFI. Respondents to this RFI are solely responsible for all expenses associated with responding to this RFI.

Any information submitted to DoIT in response to the RFI will not be returned to the respondent.

This RFI is being issued solely for the gathering of information for planning purposes, and it does not constitute a RFP or a promise to issue an RFP in the future.

This RFI does not constitute a solicitation for services or products.

Not responding to this RFI does not preclude participation in a future RFP, if one is issued. Submissions will be used by DoIT to determine the maturity of the market and the state of the industry for applicability to meet the needs of a potential System.

Respondents are advised that the responses to this RFI may be subject to the Public Records Act.

DoIT, at its sole discretion, may invite some or all Respondents to conduct a presentation to DoIT and/or engage in a conversation concerning their respective submissions. The information provided by Respondents to this RFI may shape the requirements of future efforts for the System.

DoIT, at its sole discretion, may choose to ignore or to otherwise not consider or evaluate any responses, or any portion of a response, received as a result of this RFI.

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2 Background Information

The State has a potential interest in procuring an Unmanned Aerial Vehicle Detection and Response System (“System”) to mitigate security issues within various state departments. These departments include, but are not limited to: the Department of Public Safety and Correctional Services; Port Authority; Maryland State Police; and Stadium Authority.

The State seeks sources of information from the industry on the current or near-term technologies that can enhance the State’s ability to detect, alert, track, trace, record evidence, and respond to drone intrusion. State agencies are looking for a System that can provide as much warning as possible of suspicious drones entering an unauthorized area. This warning hopefully can provide an indication of the type and load carrying capacity of the drone in order to provide insight into the threat the drone could pose. To help achieve this objective, the State intends to release an RFP to procure the System to support the needs of various agencies.

This RFI facilitates the State’s investigation into the industry’s current state and capability as it applies to technology supporting the System:

- Detection
- Alerting
- Tracking
- Tracing back to pilot
- Capturing & Recording Evidence
- Response Options

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3 Requested Information

3.1 Company Information

- A. Summary of company location, website, and size.
 - A. Contact information for the company: Name, title, email, and phone.
 - B. Brief history of the company.
 - C. Summary of company's current offerings (products and services).
 - D. Summary of company's current customer base.
 - E. Copy of standard brochure / literature about the company, if available.
- B. All responses to this RFI should describe the capabilities of drone detection and response technologies.

3.2 Questions

DoIT is requesting that the Respondents provide detailed answers to the following questions in its response to this RFI:

3.2.1 Detection

- 1) What should we know about a System's detection capabilities and the features of these capabilities?
- 2) What are the features of a detection System call out?
- 3) What attributes of awareness should a drone detection System cover? (e.g., Bearing, Altitude, Velocity, Range)?
- 4) What degree of situational awareness (field or effect) should a System employ? (e.g., 360*, 180* ...)?
- 5) What elements should be used for detection of the drones? (e.g., motion/RF signals, auditory, etc.)
- 6) Explain how a System employs multiple detection capabilities?
- 7) What is the range or distance needed to detect drones?
- 8) How does a System differentiate various types of aerial targets, such as small commercial drones, to helicopters?
- 9) How does a System differentiate between non-drone elements that are in space (birds) versus drones (target verification)?
- 10) How does a System differentiate between ground targets and aerial targets? To what degree?
- 11) How does a System track multiple aerial targets that are entering specified detection area?
 - a) How does the same detection unit handle multiple targets simultaneously?
 - b) How do the various detection Systems handle multiple targets simultaneously?
- 12) Display Characteristics:

- a) How are interested targets displayed?
- b) Is the display manual (needs to be tracked by monitoring technician) or automated?

3.2.2 Radar/Camera/Acoustic Environmental Requirements and Detection Characteristics

- 1) How should a System be hardened and capable of operating in each of the following environments and any other weather condition that might be relevant:
 - a) Rain or fog
 - b) Hail or lightning
 - c) Snow/Ice
 - d) Freezing temperatures
 - e) Wind
- 2) What options should be included in the Radar/Camera/Acoustic equipment (e.g., HD cameras, thermal images, etc.)?

3.2.3 Alerting Capabilities

- 1) How should the monitoring technician be notified that a disturbance has entered the particular covered intrusion area? (e.g., audio, lights, etc.)
- 2) What is the technical interface for alerting? How can this be monitored in more than one location, remotely?

3.2.4 Tracking Capabilities

- 1) Should the target selection be automated or manual?
- 2) How many targets should be selected at any given time per System? (e.g., one camera vs. entire System?)
- 3) What is the furthest distance (range of detection) that tracking capabilities can begin?

3.2.5 Track Back to pilot

- 1) What capabilities should the technology have to track the drone back to its originating source?
- 2) What distance is the maximum that can be incurred to track to the originating source?

3.2.6 Evidence Capture and Record

- 1) Explain how a System records the evidence to provide proof of occurrence?
- 2) What format is this tracking accomplished?

3.2.7 Explain in detail what the recording capability of a product should include (e.g. the format, recording time, storage of files, and how backups are made). Response

- 1) Describe what technology should be employed as response options for drones entering an unauthorized space?
- 2) What response options should the technology provide?

3.2.8 Technology

- 1) How does technology utilize open standards? (e.g., video systems, video Recording)
- 2) What should the infrastructure requirements be at a facility to install the equipment? (e.g., electricity, internet, physical space requirements, securing/anchoring requirements)
- 3) What expectation should the State have regarding scheduled maintenance requirements for each piece of equipment?
- 4) What managed services should be available with the System?
- 5) Is the technology available now or what is the anticipated manufacturing and current expected delivery schedule?
- 6) What should be the portability features of the System?

3.3 Solicitation Recommendations

DoIT requests Respondents to recommend any metrics, documentation, and information that the State should furnish offerors in any future solicitation. Respondents should indicate the significance or criticality of that information to the success of either the procurement itself or the subsequent implementation and operation of the solution.

Also, please provide any additional clarifications or recommendations that might be valuable to DoIT in developing and issuing a future procurement. All input is valued.

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4 RFI Process and Format

4.1 Process

Issuer seeks a written response to this RFI. If the Issuer decides to request presentations or demonstrations ("demos") of Respondent solutions, the Issuer will extend opportunity for all RFI Respondents to make a presentation or demonstration. Presentations or demonstrations may be either on-site at the Issuer's offices or online via phone and Internet. Any presentation or demonstration is informational only for the purpose of determining feasible solutions and recommendations that could be included in the future procurement. An invitation to present does not indicate that the Issuer is engaged in a pre-selection process for an implementation vendor.

Respondents are not to include pricing information.

4.2 Contact

Questions and responses shall be submitted in written form to the Procurement Officer as listed in **Section 1.2**.

From the issue date until the response due date for this RFI, Respondents shall communicate only with the Procurement Officer, who will engage personnel from Issuer as appropriate.

4.3 Due Dates

The final deadline for written questions is indicated in **Section 1.3** of this RFI. No questions will be accepted after that date.

The due date for the response is indicated in **Section 1.3** of this RFI. Responses are to be sent to the Procurement Officer's e-mail address as shown in **Section 1.2**. Responses submitted after the due date may not be reviewed and may preclude invitation for a presentation, should a presentation be requested. See **Section 1.5** for response instructions.

4.4 Trade Secrets

A Respondent should give specific attention to the identification of those portions of its response which it considers confidential, proprietary, commercial information, or trade secrets, and provide justification why such materials, upon request, should not be disclosed by the State under the Public Information Act, Title 4 of the General Provisions of the Annotated Code of Maryland. Respondents are advised that, upon request for this information from a third party, the Procurement Officer will be required to make an independent determination regarding whether the information may be disclosed.

4.5 Response Format

The files that should compose the RFI response are:

- A. Transmittal Letter - This file is an MS Word document or Adobe PDF file that is named "RFI # RFI-DRONEFY18 Transmittal Respondent Name". The transmittal letter should be in the form of a standard business letter and should be signed by an authorized individual within the respondent's organization. The transmittal letter should note the following:
 - 1) A statement that proprietary information is included, if applicable.
 - 2) A statement that the RFI response document is included.
- B. RFI Response Document - This file is an MS Word document or searchable Adobe PDF file that is named "RFI # RFI-DRONEFY18 Response Respondent Name".

- 1) The title page of the response document should specify the RFI name, the RFI number, the company name, and the contact name and title.
 - 2) The document should provide answers to the questions in Section C. The response document should not exceed fifteen (15) pages, excluding any associated materials, for example, PDF versions of standard marketing materials.
 - 3) The response document may include any additional comments, observations, or suggestions that may assist Issuer in drafting any future RFI, IFB, TORFI or other procurement vehicle.
- C. Notice of Proprietary Information - This file, if deemed necessary, is an MS Word document or searchable Adobe PDF file that should contain any confidential information. The file should be named "RFI-DRONEFY18-RespondentName - Confidential". All data within this document should be titled and referenced to the question to which the proprietary information is related.

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