Office of Information Technology Services
1220 N Street, Suite 444 – Sacramento, CA 95814-5603
(916) 767-4529
REQUEST FOR INFORMATION

DATE: **April 30, 2021**

TO: **INTERESTED PARTICIPANTS**

SUBJECT: **REQUEST FOR INFORMATION (RFI), CDFA 21-04-01**

A. PURPOSE:

The California Department of Food and Agriculture (CDFA), Office of Information Technology Services (OITS), is providing the opportunity for interested parties to participate in a survey for a CDFA External Threats Two (ET2) application system solution. Interested participants should review the following and the attached documents and submit responses and any solution descriptions to the CDFA/OITS as requested in Section E below.

Questions may be submitted by email to: CDFA.IT_RFO_Response@cdfa.ca.gov. Questions regarding this RFI may be submitted at any time up to the due date and CDFA will attempt to provide a timely response, based on CDFA resources available. The CDFA makes no commitment to make changes to this RFI based on the feedback received and we are not required to respond to any questions submitted. If questions are broad in nature, and not solution-specific; CDFA will provide all participants with the question and answer. CDFA will maintain open dialogue and sharing of information with all vendors, but in cases where a question is solution-specific, then the vendor should reach out to Mr. Edwin Lee at Edwin.Lee@cdfa.ca.gov, then the participant asking the question will receive the answer.

B. PROGRAM BUSINESS PROBLEM/OPPORTUNITY:

The California Department of Food and Agriculture (CDFA) Animal and Health and Food Safety Services (AHFSS) Division is the lead state organization for protecting consumers, livestock, and California's economy from catastrophic animal diseases and other health or agricultural related issues. As such, AHFSS is responsible for declaring an Agricultural Emergency, establishing Quarantine Zones, and recalling contaminated dairy and egg products. These quarantines and recalls rely heavily on accurate demographic and geographic information for farms, processing and retail facilities. In addition to responding to emergencies, AHFSS focuses on preventative programs that optimize the use of limited resources through the use of risk-based inspections that uses real-time data. Therefore, the collection and management of reliable data becomes essential in the prevention and response efforts.

Food safety and animal disease incidents and outbreaks continue to threaten California consumers and the States' animal agriculture and infrastructure. Recent examples include disease outbreaks of avian vND in 2018-20, Swine Seneca Virus in 2017-18, Low

Pathogenicity Avian Influenza in 2018; High Pathogenicity Avian Influenza in 2014-15; Bovine Tuberculosis in 2013-14; food safety incidents such as Salmonella in unpasteurized cheese in 2015 and early 2016. The External Threats (ET) system, used by approximately two hundred AHFSS personnel, is used to collect, manage, and report all program activities and serves as the primary source of demographic and geographic information used to respond to emergency animal disease outbreaks and food safety incidents.

A sample of the significant issues affect the ET system in use today:
- operational constraints that directly affect information quality causing duplicate and/or incomplete data in the system.
- functional limitations such as the inability for staff to adequately schedule activities, to include inspections, product and animal sampling.
- integration limitations between systems, such as integrating external data from the California Animal Health and Food Safety (CAHFS) Laboratory, which provides laboratory results for samples collected.
- lack of business integration such as between licensing, inspection and enforcement functions, which does not provide staff the ability to efficiently manage non-compliance cases.
- the replacement of ET is essential to address mission critical gaps in information management for AHFSS programs and to establish a system that can effectively provide time sensitive reliable data and reports for daily workload and emergency response.

The following detail identifies ET operational and functional issues that require expeditious resolution include:

Fixing Defects and Making Minor Enhancement is Slow and Error-prone
The existing ET system consists of a total of 28 applications, including web-modules and mobile applications, that utilizes a common underlying database. The current ET system uses a variety of software, five different programming languages and numerous versions of the programming languages. The assortment of software languages makes daily maintenance and operations (M&O) by CDFA OITS a challenge, and maintaining a team of properly trained OITS personnel for the diverse software is problematic. As an example, some of the production mobile device applications are no longer compatible with current development tools, making debugging of the code impossible. Similarly, some of the older web modules were developed using versions of old web development software frameworks, while newer applications use current versions. This limits AHFSS ability to quickly have changes made and implemented to respond to routine and emergency animal disease and food safety issues.

Inconsistent and Unreliable Information
The 2018 animal disease emergency response (avian vND) highlighted the significance of inacurate information to effectively respond. Early in the outbreak, personnel spent the first two weeks validating and cleaning information for over 3,000 ET records for poultry farms in Southern California. Quick actions are essential for emergency disease response and inaccurate ET data resulted in the inability to promptly start disease surveillance testing and perform farm assessments to mitigate disease introduction and spread.

Although the effects of this delay has yet to be evaluated, a 2011 study conducted by University of California Davis researchers on another highly contagious animal disease, Foot and Mouth Disease Virus (FMD), determined that effective early detection will avoid dramatic losses to both livestock and the economy. The study concluded that "the median economic impact of an FMD outbreak in California was estimated to result in national agriculture welfare losses of $2.3 to $69.0 billion as detection delay increased from 7 to 22 days, respectively". The study also determined that the economic impact of a 1-day delay in diagnosis and notification in California was $8.1 million, with economic impacts of $60.7 million and $197.1 million for 2 or 3-day delays.

Common Data Business Rules and Ability to Share Data Amongst Programs is Inadequate
Although some business rules were implemented in ET to share demographic and geographic information among programs, there are no underlying business rules to ensure data is consistent across multiple programs. This means that changes in shared information must be enforced by policy rather than by the system. ET has approximately 200 AHFSS statewide users and unfortunately not all personnel keep abreast of policy memorandums. This has resulted in changes to core program information that can have an immediate adverse impact during animal disease and food safety emergency responses and daily routine work, which includes, but is not limited to, the inspection of high risk facilities, annual license renewals, and/or administrative or criminal investigations. As previously mentioned, there are over 3,000 duplicate premises in ET and approximately 40,000 of the 47,000 farm premises and operations that were imported into ET remain in a pending status until validation takes place. A new data storage solution must have business rules and security built-in to mitigate the risk of duplicate premises and inadvertent changes to core data that crosses multiple programs.

Data Exchange between Stakeholders and Mobile Device Data Capture are Inadequate
ET has a limited ability to accept electronically submitted information from mobile devices, which is mission critical for the AHFSS workforce where two-thirds of the workforce are assigned to the field and would work more efficiently if they were provided with real time connectivity to the local field office and Sacramento AHFSS Headquarters. Currently, AHFSS programs have implemented the limited use of mobile devices to collect data for some activities such as shell egg facility inspections, dairy products sampling, and cattle inspections. However, integration of data between systems has been challenging, costing hundreds of extra hours in programming time and needing to hire outside consultants to trouble-shoot applications. Additionally, some mobile applications security protocols do not meet current State security standards.

The proposed solution needs to provide an architectural framework that utilizes common standards for both data exchange and for mobile devices and their communications. This will provide AHFSS' the ability to quickly, efficiently, and securely create data exchange solutions with various business partners and to standardize communications between mobile devices, field offices, and AHFSS Headquarters.

Compliance-Enforcement and Case Management Features are Limited
The CDT ET Data report found that eighty-five (85) percent of the tables within ET do not have referential integrity defined or enforced at the database level, record relationships

may or may not be defined at the software application level. This assessment of ET means that key program information for an activity such as licensing a dairy product processor may not be linked to a compliance or enforcement action, though all of the information is stored in ET. For example, MDFS environmental scientists collect over 11,000 samples per year at dairy farms and dairy products facilities to test for food safety and quality control standards. The sample and testing information, though stored within ET, may not be linked to a specific farm or to the specific inspection or compliance activity that collected the sample; if it is linked, the relationship was created at the software level and could easily be in error or altered without any impact at the database level. This is a major issue with compliance, case management, and any potential enforcement action that may result as data correctness and integrity could easily be called into question; ET does not currently have any data auditing or change logs to trace when, who, and what data may have changed.

The current ET system does not provide the capabilities or functions of a traditional case management system; an individual ET module is more a collection of independent activities where data is collected and stored for the specific activity but no workflow between activities is provided. Also, the lack of access to current and historical information for cases, both within a program and across programs, limits the ability of investigators to track a case from an inspection to an investigation, assess non-compliant activities that may have occurred in another program that may provide pertinent background information. The proposed solution needs to provide a case management solution that ensures individual business sub-processes are completed and integrated with other sub-processes and provides an overall process workflow. Further, within the case management functionality, access to related historical and current data must be available to all programs within AHFSS.

Management Reporting and Trend Analysis Abilities are Weak
ET is a Web-based system developed over 10 years ago and its design limits development of trend analysis reports and summary reporting across activities. Currently, most of the reporting is restricted to simple query lists associated with only one business-set of information. The Antimicrobial Use and Stewardship program recently attempted to use ET's demographic data to conduct legislatively mandated surveys. The lack of integration severely impacted the ability of the program to leverage existing demographic information resulting in the need to combine ET data with data from other sources, and hire a temporary employee to address the thousands of data errors. During a food safety or animal disease emergency, this type of delay will compromise an effective response, potentially costing millions of dollars and have serious negative impacts on human health.

Program managers are not able to use ET effectively to manage operations by gaining insight into the trends and take effective strategies to increase operational efficiencies and check for anomalies. What's lacking includes accurate reports for internal and external stakeholders that provide the ability to forecast resource needs, direct inspection and compliance activities utilizing cost effective lean risk-based analysis, and examine trends and patterns to prevent animal disease introduction and mitigate food safety incidents.

Online Services to the Public are Inadequate
The current system does not allow the public to manage application and renewal of licenses- permits-certificates. These processes require manual data entry once an

application is received. Automating these processes will decrease licensing processing time, increase accuracy and be more convenient to applicants. Additionally, ET lacks a Web-based portal to allow producers on-line, real-time access to inspection results. Currently, producers are faxed, emailed, or receive manually generated hard copies of reports, which can be a slow, time-consuming, resource intensive process. ET also does not have the ability to process fees paid for licenses or fines by credit card.

CDFA is searching for a solution that meet all the requirement listed in Attachment B.

C.   ACQUISITION PLAN:

The CDFA/OITS may conduct a procurement for a ET2 solution with a Request for Proposal (RFP), Request for Offer (RFO), Leveraged Procurement Agreement, or some other State-authorized procurement vehicle. This RFI is the first step in determining what, or if, potential solutions currently exist; how closely these solutions match the Program's defined needs; if there are any significant procurement or technical hurdles/obstacles that could be mitigated by changing the solution approach, and how the solution could be procured.

The responses to this RFI will be analyzed, and all identified solutions, alternatives, risks, and issues reviewed, and workarounds, options, and recommendations considered. The results will then be presented to the CDFA ET2 Program for their review with and eventual decision made regarding the procurement approach they would like to use to acquire a new solution as well as the business needs they are willing to modify to help mitigate the acquisition risks.

Should the Program identify that they would like to pursue procuring an existing solution, rather than create a new solution, a Request for Proposal (RFP), Request for Offer (RFO), or an alternative State procurement vehicle will be used to acquire the solution. It is anticipated that should this option be selected, the earliest date to begin the procurement would be June 2023.

D.   RESPONDING TO THE RFI:

Interested participants should be familiar with the State Contracting Manual, General Provisions for Information Technology, Cloud Computing General Provisions, and the Special Information Technology Provisions. Anyone that may require more detailed information about these Provisions should go the Dept. of General Services Web Page or use this link: Model Contract Language (ca.gov)

Interested participants are requested to complete the following Attachments. Each Attachment is included as a separate tab in the Microsoft Excel workbook. If the vendor is not proposing SaaS as an option, then the Attachment G tab in the Excel workbook does not need to be completed.

The following is a summary of the Attachments, located in separate tabs within the Excel workbook, where information is requested. The CDFA is interested in acquiring as much feedback as possible to make an informed decision and to minimize acquisitions risk. Vendor input is greatly appreciated.

Attachment A (RFI Response Worksheet)
Attachment A is intended to capture information related to the participants' company, if the company is the provider of the solution, a reseller, or an integrator, and information related to the company's presence within the State of California.

Attachment B (Requirements)
Attachment B identifies the mid-level requirements for the interested solution; these may be considered "feature-level" requirements. The participant is requested to review each requirement and identify if the participant's solution provides this feature in whole, partially, or not at all. Additionally, the participant is requested to provide information on what the solution does provide, any alternatives and options the participant would recommend CDFA consider, and any other comments that may be relevant to each feature. The intent of collecting this information is to allow CDFA to reconsider the means in which the business needs may be satisfied, and input from the participants in this RFI process is very valuable.

Attachment C (Services and Hosting)
Based on preliminary reviews of existing ET2-type solutions, CDFA has identified that there are various potential providers of candidate solutions. It appears that many vendors also provide services for the installation, configuration, and hosting options. Attachment C is focused on identifying the specific services and hosting options that are available from the participant. CDFA does not have a preference and does have a desire to consider all options.

Attachment D (Solution Architecture)
In Attachment D, participants are requested to identify the solution software, hardware, and other architectural features of the solution. CDFA is requesting this information due to the potential need for the solution to grow or be implemented incrementally and has a concern that the architecture of the solution may hinder this evolution. Of high interest is CDFA's ability to move data into and out of the solution and the solution's ability to interface with other systems, including existing CDFA systems.

Attachment E (Cost Information)
In Attachment E, CDFA is requesting that the participant provide non-binding rough-order-of-magnitude cost information for the solution, for both the implementation effort as well as the ongoing costs. CDFA is also very interested in identifying the cost drivers that will significantly impact the cost of such a solution; knowledge of these cost drivers will allow tradeoffs to be considered and decisions made. While solving the business need is critical, CDFA wants to ensure all options for the solution, including cost, are considered to acquire the best solution and the best cost.

Attachment F (Additional Information)
In Attachment F, the participant is encouraged to add any additional comments, ideas, suggestions, etc., that the participant believes would help the CDFA in acquiring a

solution. However, participants need to be aware that the CDFA must adhere to the State of California procurement laws, policies, and general rules that govern State procurement. While all input is welcome, input that is actionable by CDFA is preferred.

Attachment G (Provision Comments)
The model contract language required by the State of California when acquiring IT services, include GSP 401 – General IT Provisions, Infrastructure as a Service, Platform as a Service, and Software as a Service (SaaS) solutions. The participant is requested to review this model language and, within the Microsoft Excel file tab Attachment G, identify any issues or concerns the participant has with this language, as well as any requested edits that you would like the state to consider.

Attachment H (CDFA Glossary of Terms)
In attachment H, CDFA is providing a glossary to aid participants in understanding the acronyms and terms found throughout the RFI document and used in various attachments in this RFI. No entry is required here as this attachment is used for reference only.

Attachment I (AHFSS Division - Information System)
In attachment I, CDFA is providing a listing of application system that are being used to support AHFSS Division operation. No entry is required here as this attachment is used for reference only.

E. **SUBMISSION:**
Participants are requested to provide one (1) electronic file with a cover letter, a Microsoft Excel format file of the completed Attachments, and any supporting documentation the participant would like to provide. Responses may be sent via email to: CDFA.IT_RFO_Response@cdfa.ca.gov no later than **Monday, May 24, 2021 – close of business.**

F. **NOTE TO RESPONDANTS:**
Responses to this RFI are for informational purposes only and do not reflect the actual final RFP content. Further, any cost information is strictly considered a rough-order-of-magnitude and is non-binding on the participant and the CDFA. However, the participants' willingness to provide the requested information to the CDFA will significantly aid CDFA in acquiring a solution that will meet the needs of the business and industry, with the lowest acquisition risk at an acceptable cost.

An **optional** Zoom virtual ET2 - RFI Vendor Conference will be conducted for all interested parties on **Monday, May 10, 2021 from 8:00 a.m. to noon** for those interested in hearing a presentation about AHFSS business, the current External Threats application system, and CDFA subject matter experts will be available to answer an questions about elements and/or requirements from this RFI. Please **RSVP** by **Friday, May 7, 2021** close of business with Mr. Jared Hara via the contact information below or you may call 916-757-4529 for meeting details.

G. INQUIRES OR QUESTIONS:

Please send any request for clarification and/or questions to the following contact person:

Jared Hara, IT - BBOC Analyst
1220 N Street, Suite 444
Sacramento, CA 95814-5603
Email: CDFA.IT_RFO_Response@cdfa.ca.gov