**Title of Project**: Appeals Development Support, Evaluation of Coding Exercise

**Teams Involved**: Digital Service Team at VA, VA Technology Acquisition Center

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**Background**: VA’s intention was to make an award for Agile Development support to modernize VA’s Enterprise Appeals Process to enable VA to adjudicate appeals efficiently. This effort includes the modernization of the technology, as well as the development, configuration, and implementation of a Veterans-centric appeals processing management solution.

The VA team performed market research to determine the most appropriate contract strategy, concluding that a Service-Disabled Veteran-Owned Small Business set aside on VA’s Transformation Twenty-One Total Technology Next Generation Contract would be most advantageous. This contract proved to provide an appropriate number of vendors with the requisite capabilities.

**Innovation**: Within the best value tradeoff process, VA sought to assess offerors through the evaluation of a software code submission in an attempt to gain further insight into an offeror’s quality of code development and design. VA did not desire to rely solely on a written technical approach for the technical evaluation, although did include a written portion to supplement the coding exercise. The coding submission was not designed to evaluate the Offeror’s familiarity with the Appeals process, but rather the Offeror’s expertise and capability to use the tools and methodology currently in use by Digital Service and required by the PWS for the development of Appeals products. The exercise consisted of nine user stories and required Offerors to create a Ruby-on-rails web application with a front-end JavaScript component. Offerors were provided 72 hours to develop and submit the code. The source code for the coding submission and all relevant design assets and documentation were delivered via git repository with a clearly viewable commit history of the entire development process.

VA included in the evaluation a software coding exercise that generally followed this format:

* Request for Task Execution Plan (RTEP) detailing the full requirement was released to all vendors. This included the coding exercise submission instructions and evaluation approach. At this point the vendors could begin working on the response to the price portion of the evaluation and the written technical portion. This provided guidance on the coding submission and detailed how the submission would be evaluated, but did not provide the information to begin the coding exercise.
* After release of the RTEP, VA provided notice that the coding submission information would be posted at a certain date/time.
* At the appointed time, nine user stories were released and vendors were provided 72 hours to provide a coding submission. Upon release, vendors were provided 4 hours to submit questions pertaining to the coding submission. VA had 2 hours to respond to all questions.

Upon submission VA evaluated the development and design of each Offeror’s code submission. The development component of the evaluation considered seven development categories, each with subcomponents. The design component of the evaluation considered four categories, each with subcomponents. These categories are listed below:

**Development: Design:**Security Visual Design   
Testing User Research  
Database/Data Modeling Interaction Design  
Code Quality Thoroughness  
Application Quality  
Documentation  
DevOps

**Retrospective:**

* Within the evaluation the Government should be cautious about imposing go/no go wording. For example, stating within Code Quality a requirement that “there are no flagrant misspellings or typos” can become very binary.
* Consider whether your evaluation criteria allows for sufficient strengths and weaknesses.
* Discuss with your team whether not completing all user stories is a reason for a deficiency, or whether the quality of code and design could “offset” a missing user story. Specifically, would the Government desire all user stories addressed with lesser quality and design, or almost all user stories completed with high quality and design.
* Much of the coding evaluation made for a very objective analysis (e.g. Specific security vulnerability identified), which is helpful to both parties for debriefing purposes.
* This approach requires expertise to evaluate successfully. Without a development and design team this approach would not be effective.
* Depending on the acquisition, consider further limiting or eliminating the written approach portion.

**User Feedback:**

* A 72 hour time box was difficult. The Digital Service Team did perform user testing before this exercise, but the timeframe is still something to consider.
* The vendor cost, including preparation and the 72 hours of the team’s time, is significant, so consider a two-step approach to limit proposal costs.
* If this evaluation method becomes more routine, proposal teams must be realigned.
* While requiring the contractor team that participates in the code submission is understandable, it poses challenges to vendors.