JUSTIFICATION FOR AN EXCEPTION TO FAIR OPPORTUNITY

1. <u>Contracting Activity</u>:   Department of Veterans Affairs (VA)
Office of Acquisition Operations
Technology Acquisition Center
23 Christopher Way
Eatontown, NJ 07724

2. <u>Description of Action</u>: The proposed action is for a modification to firm-fixed price (FFP) Task Order (TO) number VA11816F10090004 under Transformation Twenty-One Total Technology Next Generation (T4NG), with AbleVets, LLC (AbleVets), to expand the scope of the TO to increase the level of sustainment services to allow for additional users to the Joint Legacy Viewer (JLV).

3. <u>Description of the Supplies or Services</u>: The proposed action shall provide an increase to the number of authorized users and associated sustainment services for the JLV for VA Enterprise Program Management Office (EPMO). The directed decommissioning of VistAWeb (VW) by the end of FY17 makes JLV the program of record for interoperability between VA and DoD. VA Executive decision to decommission VistAWeb (VW) by the end of fiscal year (FY) 17 and replace it with JLV was recently announced. As a result, the scope and impact of this decision could not have been foreseen during acquisition package development and solicitation in the fourth quarter of fiscal year 2016. The VW served as the primary tool for VA clinicians to obtain clinical information and health records from other VA facilities, the Department of Defense (DoD) and community partner organizations. The VW is currently accessed by Veterans Health Administration (VHA) staff through Computerized Patient Record System (CPRS) or a stand-alone VW web site. This decision to decommission VW and replace it with JLV was made because of newly emerged VA security requirements which require Two-Factor Authentication (2FA), which VW does not support. JLV is Personal Identity Verification (PIV)-enabled per Federal Information Processing Standards (FIPS) 201 and is 2FA compliant. JLV also incorporates the VW functionality, with many additional benefits. As more users utilize the JLV due to the pending VW decommissioning, performance outages and degradation have increased which severely impacts patient safety. JLV is currently in use at every VA Medical Center and Veterans Benefit Administration (VBA) Regional Office. Nearly 40,000 VA staff have used JLV since it became available across VA on October 1, 2014. JLV enables users to view comprehensive electronic health records (EHRs) from all of VA, DoD, and community partner facilities where a patient received care. VA requires an increase in the number of authorized JLV users. Specifically, the current performance under this TO provides 180,000 authorized users for JLV. VA requires additional access to the JLV for an additional 220,000 users. With the decommissioning of VW by the end of FY17, JLV anticipated growth is expected to exceed 300,000 users by the end of FY17, increasing to 400,000 by end of FY18. This increase in FY17 was not anticipated at initial task order award, nor was the FY18 expected growth, each of which is directly attributable to the decision to decommission VW. VA also requires sustainment services because of the additional 220,000 JLV users and the demand it

will place on the JLV system which will elevate already existing performance degradation. Specifically, sustainment services include administration, operations, configuration, access control, and fault isolation/repair and maintenance of the JLV software components. These sustainment services are required to improve the code that currently runs the JLV. The areas that have known issues are the underlying WebLogic software, Structured Query Language (SQL), server clustering and availability, and enterprise Java Virtual Machine performance tuning for multithreaded, high volume, asynchronous, web-based transactions. Other areas that require review, diagnosis, and then fine tuning are VistA queries and Remote Procedure Calls. In addition, the sustainment services required include the resolution of performance issues specifically for the JLV features for Patient Select and Patient Search, which will be utilized by the additional users of the JLV system. The period of performance for this proposed action shall from date of award of the modification through September 29, 2017 for the base period. This increase shall also be incorporated across the remaining three 12-month options periods. The total estimated value of the proposed action including options is ▮▮▮▮▮▮▮

4. <u>Statutory Authority</u>: The Statutory authority permitting an exception to fair opportunity is Section 41 U.S.C. 4106(c)(3) as implemented by the Federal Acquisition Regulation (FAR) Subpart 16.505(b)(2)(i)(C), entitled, "The order must be issued on a sole-source basis in the interest of economy and efficiency because it is a logical follow-on to an order already used under the contract, provided that all awardees were given fair opportunity to be considered for the original order."

5. <u>Rationale Supporting Use of Authority Cited Above</u>: The proposed source is AbleVets, 6759 Bronze Post Road, Centreville, Virginia 20121. The original action was awarded to AbleVets under a competitive action. JLV is a joint viewer that enables providers from each Department to view a patient's comprehensive health history from both VA and Department of Defense (DoD) electronic health record sources. Both Departments depend upon JLV to meet the National Defense Authorization Act (NDAA) 2014 requirement for "an integrated display of data". JLV provides a Graphical User Interface that displays a common data view of real-time patient information from multiple Electronic Health Record (EHR) systems and data sources. This means that patient data from both DoD and VA health information systems is collated and displayed chronologically on a single screen. This allows for a faster and more complete understanding of a patient's health status. Through JLV, providers within the DoD and VA view patient's comprehensive health history under a 99.9 percent availability sustainment requirement. Failure to address performance degradation, as described above, based on the increased user base, would result in a system with little utility to make decisions about patient care and to ensure their diagnoses and prescriptions do not do more harm than good.

Ablevets is the only source to meet the requirements in the interest of economy and efficiency. Specifically, Ablevets has been assisting in developing the JLV codebase. As part of that effort, Ablevets has created the run-time map which defines the process by which select routines call specific JLV functions and features, and which have

significant dependencies in kicking off other, dependent JLV and VistA routines (e.g., Remote Procedure Calls or RPCs). This level of run-time execution expertise cannot be documented in the code architecture to the level of granularity necessary for any other source to immediately identify and resolve the performance issues. Rather, any other source would have to duplicate the efforts Ablevets has already completed in order to meet VA's need. Specifically, any other source would have to re-develop a map of the code call stack in a separate development environment, create a code fork, and verify the functionality of the new code, JLV version 2.6, and perform extensive testing to ensure there is no damage to the original functionality of the JLV version 2.5 codebase, which currently is experiencing performance issues in production. Code forking is the creation of a distinct and separate piece of software creating, in essence, a form of schism.   When attempting to put the pieces back together through the configuration management process, the complex run-time map is required to ensure all the pieces are put together in the sequence in which the code will be executed. The negative impact is this process requires any new source to re-engineer the run-time process to understand how the code is supposed to work functionally before it can reasonably begin to identify the source of performance issues. Further, it will result in additional configuration management support to merge the variances between v2.5 and 2.6. It will require significant, additional testing (unit, functional, regression, and integration testing) to validate that the forked code functionally performs as originally designed in v2.5. Only after undertaking this rigorous process would another source be able to only then begin to address the performance issues under load. The harm the project would realize, based on the additional time it would take for any other source to complete the re-engineering effort, as well as the additional testing and configuration management support, would be the potential inability for the DoD and JLV providers to access patient healthcare records because the system will be under a load demand it cannot sustain. Any delay in correcting the performance issues will increase the risk associated with the inability to access the system by DoD and JLV providers.

In light of the significant JLV code and system performance degradation risks, only AbleVets can meet the VA requirements for achieving VA's JLV transition objectives and meet DoD's Military Health System (MHS) launch schedule, which are both planned for September 2017. Specifically, any other source would have to re-engineer a map of the code run time environment relative to JLV version 2.5, while in parallel, JLV version 2.6 is being developed.   AbleVets created the run-time map of the code, having originally developed it. This run-time mapping process can be obviated by having AbleVets move directly to assessing and resolving the performance issues. AbleVets would use the current codebase to perform a technical software analysis process to begin to assess and resolve the performance issues. This includes analysis and baselining of the system configurations for a WebLogic-based n-tier Java application leveraging automated distributions, SQL Server-based clustering configurations and optimizations for high-volume transactions, and performance tuning recommendations of multi-threaded, network intensive queries that leverage VistA RPCs across the VA enterprise, and Asynchronous Javascript and XML user interfaces. AbleVets has the code run-time expertise to perform this process and to identify and mitigate any identified opportunities to improve performance in the infrastructure, configuration, and

code of the JLV system. AbleVets has established cross-agency integration testing processes such that all changes are coordinated with JLV's numerous partners both within and external to the Agency, a process critical to execution of timely integration testing, regression testing and performance testing so that performance improvements can be demonstrated with each change.

Using AbleVets to perform this technical analysis would obviate the scope of work necessary for a new source to perform code run-time mapping to first understand how the JLV code works before undertaking performance tuning, the desired scope of work of this modification. It would obviate the risks associated with code forking. It would lessen the complexity of integration testing by only needing to integration test on a single code base across multiple partners, versus two (2) code bases internal to VA that had been forked, then with external partners. AbleVets currently has the capability and any other source would be required to duplicate the efforts already completed resulting in extensive duplicated cost and delivery delays that would not be recovered through competition. Specifically, VA would incur $1.3M in duplicated cost and six (6) months in delivery delays, which as analyzed, cannot be expected to be recovered through competition. This estimate is based on the resource cost of running a duplicative, parallel process (via a new source) to map the code call stack (RPCs) against legacy code (JLV version 2.5) while new development is being performed (under the existing contract) to launch JLV version 2.6 in September 2017.

6. <u>Efforts to Obtain Competition</u>: There is no competition anticipated for this acquisition. In accordance with FAR 5.301 and 16.505(b)(2)(ii)(D), this action will be synopsized on the Federal Business Opportunities Page (FBO) and the justification will be made publicly available within 14 days of award.

7. <u>Actions to Increase Competition</u>: The Government will continue to conduct market research to ascertain if there are changes in the market place that would enable future actions to be competed.

8. <u>Market Research</u>:   The Government's technical experts conducted market research in June 2017 to ascertain if any other sources can meet VA's requirements. No sources were found that are providing similar services for the JLV. No sources were discovered that could meet VA's requirements in the timeframe provided without resulting in the duplicated efforts outlined in section 5 of this justification. Based on this market research, only AbleVets can meet VA's needs.

9. <u>Other Facts</u>: None.