

JUSTIFICATION FOR AN EXCEPTION TO FAIR OPPORTUNITY

1. Contracting Activity: Department of Veterans Affairs (VA)
Office of Procurement Acquisition and Logistics
Technology Acquisition Center
23 Christopher Way
Eatontown, NJ 07724

2. Description of Action: The proposed action is for a firm-fixed price delivery order that will be issued under the National Aeronautics and Space Administration (NASA) Solutions for Enterprise-Wide Procurement (SEWP) V Governmentwide Acquisition Contract (GWAC) for an Enterprise License Agreement (ELA) which includes software maintenance, professional services, and software license procurement for select VMware products.

3. Description of the Supplies or Services: VMware products provide underlying core functionality crucial for the development and deployment of many new VA applications as well as applications already relying on VMware products. VMware software has already been implemented in support of a wide range of VA applications like Veterans Information Systems and Technology Architecture (Vista), Vista Read Only, Vitria, Vista Blood Establishment Computer System (VBECS) and Joint Legacy Viewer (JLV) which are critical to the operation and success of the VA enterprise. VMware software products being procured under this ELA include hypervisor (including upgrades) and mobile device management (MDM) software. Hypervisor software provides VA high availability of hosting over 97% critical VA applications. MDM software provides mobile device management as well as application management. MDM software also provides mobile device security in deployment of VA developed applications for Veteran owned devices. These critical applications only run VMware software.

This proposed ELA will provide a single contract vehicle that will consolidate support of all existing VMware software programs licensed by VA today, while at the same time providing a means for VA to acquire additional licenses to augment or expand existing infrastructure with a select number of VMware software products already deployed by VA. The ELA is comprised of three elements:

- (1) Software maintenance on currently fielded VMware software products.
- (2) The purchase of hypervisor software, MDM software, and maintenance of additional specific VMware products
- (3) The purchase of professional services.

First, VA requires software support and maintenance services which include software upgrades, bug fixes, 24x7 Mission Critical support, multiple contact options (e.g. web, eSupport, e-mail, and phone access), with tiered level escalation to resolve user issues. In order to assure the continued operational

success of the aforementioned applications, which are built on VMware functionality, it is critical that VA continue the software maintenance provided by VMware.

Secondly, this ELA will provide VA the ability to purchase additional licenses along with associated software maintenance support, to provide for the augmentation or expansion of existing VMware infrastructure and application use already in use within VA, to include VA Office of Information and Technology, Enterprise Program Management Office, Infrastructure Operations data centers, Solutions Delivery designed solutions at 246 locations, and other Field Operations Regions and business units currently utilizing VMware software infrastructure. Software maintenance for additional licensing includes software upgrades, bug fixes, 24x7 Mission Critical support, multiple contact options (e.g. web, eSupport, e-mail, and phone access), with tiered level escalation to resolve user issues.

Thirdly, this order will include professional services consisting of a dedicated technical account manager, and professional service organization credits that will assist VA in providing field staff training and efficient IT enterprise virtualization and application services, engineering, operation and maintenance field support to ensure security, enhanced stability and availability of VA's information technology (IT) infrastructure.

The period of performance will be for 12 months beginning on October 4, 2018 and includes three 12-month option periods; the total estimated value of this proposed action is [REDACTED], inclusive of optional quantities and option periods.

4. Statutory Authority: The statutory authority permitting this exception to fair opportunity is Section 41 U.S.C 4106(c)(2) as implemented by Federal Acquisition Regulation (FAR) Section 16.505(b)(2)(i)(B) entitled, "Only one awardee is capable of providing the supplies or services required at the level of quality required because the supplies or services ordered are unique or highly specialized."

5. Rationale Supporting Use of Authority Cited Above: Based on market research, as described in section 8 of this document, it was determined that limited competition is available among VMware authorized resellers. Since 2001, VMware software has been in use at VA nationally and in that time it has allowed virtualization across the enterprise to meet the requirements of VA. Operational processes, staff and physical infrastructure are deployed to effectively support VA's mission utilizing this VMware virtualization environment.

VA requires both hypervisor software and MDM software. No other brand name hypervisor software and MDM software can meet all of VA's interoperability and compatibility requirements with the existing infrastructure. Specifically, the existing

infrastructure consists of over 4,000 VSphere hosts, 32,000 Virtual machines, 45,000 mobile devices that currently only run on the existing VMware hypervisor software and MDM software. Use of any other brand name software would not be able to communicate with this existing infrastructure due to the proprietary constraints within the VMware software. Utilizing any other brand name software would result in a redesign, reengineering and redevelopment effort that would require replacement of most of this existing infrastructure. Replacing this infrastructure would result in extensive delivery delays of 6 years and duplicated costs of \$600M that would not be recovered through a competition. These estimates are based on similar design efforts for the current infrastructure. In addition, the existing infrastructure consists of various applications that can only work with the VMware hypervisor software and MDM software. Specifically, these applications include Vista, Vista Read Only, Vitria, VBECS and JLV. Use of any other brand name hypervisor software and MDM software would not be able to communicate with these existing applications due to the proprietary constraints within the VMware software. Use of any other brand name software would result in a redesign, reengineering and redevelopment effort of these applications which would result in extensive delivery delays of 15 years and duplicated costs of \$1B that would not be recovered through a competition. These estimates are based on similar design efforts for the current applications.

VA can only use VMware hypervisor software and MDM software to meet all of its functional requirements. The below analysis will breakdown the functional requirements VA must have for both hypervisor software and MDM software.

Hypervisor Software

No other brand name hypervisor software can meet all of VA's requirements which include various functional requirements that VA must have in any hypervisor software. Specifically, VA requires any brand name hypervisor software to perform live workload migrations between VA data centers, have PIV functionality, provide scalability, provide consolidated systems management dashboard, provide predictive analytics, and be compatible with both commercial off the shelf (COTS) applications and VA developed applications. A detailed analysis of these functional requirements for the hypervisor software is listed below:

Live Workload Migrations

There is no competitive offering that can provide a VA-wide consolidated management platform, integration with existing investment in hardware platform, and integration with existing VA software and infrastructure management and automation tools. Only VMware hypervisor software provides a seamless live migration for disaster recovery and shared storage. One of the critical requirements for VA data center procurements is to have an infrastructure that, in compliance with VA Disaster Recovery (DR) policies, can provide a seamless DR capability through live migration across multiple operating systems and between

VA data centers. VA requires a hypervisor solution that provides live workload migrations between VA data centers with zero downtime, zero data loss, and continuous availability of hosted software applications, without the cost and complexity of traditional hardware or software clustering solutions. VMware is the only hypervisor product available that provides this capability.

Personal Identification Verification Functionality

VA also requires a hypervisor solution that supports Personal Identification Verification (PIV) Security Compatibility. The solution must support VA's PIV user access requirements by allowing Serial Ports (up to four) or connecting serial devices such as smart cards and e-token readers; VA requires fully functional PIV use across the software stack. The hypervisor solution must also address VA's requirement for PIV and 2-factor authentication user access. In addition, the virtualization software required by VA must support connecting VA smart card (i.e. PIV, e-Token) readers to multiple virtual machines (VMs), which can then be used for user authentication. VMware is the only hypervisor product available providing this capability.

Scalability

VA also requires VMware administrators to be able to scale VMs by adding or removing virtual compute, storage and networking resources (i.e. Central Processing Unit, Random-Access Memory, disk storage, networking) to VMs without interruption to the online status of the VM, operating system, or software application running over it (also known as "hot add" capability). The VMware hypervisor is the only hypervisor available that provides this "hot add" capability to add the virtual resources without operational interruption to the VM.

Consolidated Systems Management Dashboard

VA also requires a consolidated systems management dashboard, capable of scaling to meet VA future growth requirements, including over 4,500 virtualization hosts and 35,000 virtual machines. VMware vRealize Operations Manager currently exceeds VA requirements, while providing a single pane of glass function that is critical for rapid executive level decision making and futures discussions. This functionality is critical to providing enterprise level troubleshooting, procurement decision making, Government Accountability Office and Chief Information Officer reporting. VA also required proactive monitoring to provide health monitoring, performance alerts, and predictive analytics in all virtual infrastructure areas. The VMware consolidated management console is the only management product capable of seamless integration and out of the box capability.

Predictive Analytics

VMware is the only product that can meet all of VA's interoperability and functional requirements. In addition, only VMware provides predictive analytics that meet VA's requirements. Specifically, VMware management software is the only software with the capability VA requires to learn what "normal" is for its current environment. The term "normal" refers to the expected behavior of an IT infrastructure environment. Utilizing a product without this capability, would result in false and inaccurate performance analysis alerts. Accurate alerting is critical to ensure systems are fully operational. Only VMware can provide the predictive analytics that can ensure the current systems are fully operational.

Compatible with COTS Applications and VA Developed Applications

The VMware vSphere hypervisor is an integral part of VA core operations. Over 97% of VA critical applications run on the vSphere hypervisor. The vSphere hypervisor is required by COTS applications, to include: Cisco Unity voice over Internet Protocol infrastructure, Telemedicine video and voice, Nuance voice medical dictation and a number of internally developed applications to include VISTA and JLV. Additionally, Intersystems HealthShare, a required component of the VA and DoD-wide electronic medical record implementation with Cerner, requires the vSphere hypervisor. These applications are critical components of all VA datacenters, both on and off-premises; therefore, the vSphere hypervisor is a required component of all VA data center operations.

MDM Software

No other MDM software can meet all of VA's functional requirements. Specifically, no other product meets VA product application requirements while meeting VA scale and availability requirements. No other brand name MDM software can provide a derived credential solution that allows two-factor authentication and integration with native applications and device profiles along with third party applications. This is a critical VA functional requirement that only VMWare software can meet.

AirWatch

The VMware Airwatch product provides multiple identity source and identity management required by the VA. The VA requires both unique internal and external identity sources to maintain security and the ability to interface with VA employees and internal staff as well as external Veterans. This is a required function that no other product can provide. The AirWatch product also provides full multi-tenant capabilities to allow security zone segregation between mobile devices and applications, a required function of the VA. The Airwatch product also provides full certificate management and multi-platform security support across both legacy BlackBerry and current Apple devices, the wide array of security support additionally provides the VA the ability to support a wide-range of Veteran owned devices, which is required by the VA.

Finally, no other source can provide the software maintenance support without access to VMware's proprietary code. This acquisition is to maintain software licenses and provide the option to augment existing VMware infrastructure, and due to the proprietary source code required by the existing infrastructure, no other item is automatically interoperable or can be integrated with the currently fielded VMware infrastructure. In addition, the current VMware architecture only allows for the use of VMware vSphere hypervisor and management software. Procuring an alternate hypervisor and/or management platform would require both additional hardware and software for the converged virtualization infrastructure, and it would also invalidate the reference architecture support agreement in place with the infrastructure. The VMware infrastructure hosts mission critical applications including patient record and core infrastructure Veteran healthcare and benefits delivery services requiring the highest availability.

VMware or an authorized re-seller of VMware services are the only known sources with access to proprietary VMware software code and are capable of providing the level of support and professional services required under this action to ensure mission critical requirements are handled in a timely manner. Any other source must have access to the proprietary VMware code in order to ensure all services are properly configured. In addition, access to this code is needed to develop and deploy any upgrades and updates to the software due to the proprietary constraints. The proprietary VMware software code allows only VMware or an authorized re-seller of VMware services the ability to alter or modify the VMware software source code, utilized in enterprise production software by VA, which no other source can do. For the same proprietary reasons, the professional services required by VA can only be provided by VMware or an authorized re-seller. The Government does not possess the proprietary technical data or source code for the VMware software. The Government's technical experts contacted VMware in June 2018 to ascertain if its proprietary technical data and source code was for sale and were advised that it is not for sale. VMware owns the proprietary source code for its software products and services and does not sell the proprietary source code as part of the products and/or services sold to customers.

6. Efforts to Obtain Competition: Market research was conducted, details of which are in section 8 of this justification. This effort did not yield any additional sources that can meet the Government's requirements. However, the undersigned VA technical representative determined that limited competition is available among authorized resellers for brand name VMware licenses, as well as software maintenance and support. In accordance with FAR 16.505(a)(4)(iii)(A)(1), this justification will be provided with the solicitation to all appropriate NASA SEWP V GWAC holders. Furthermore, in accordance with FAR 5.301, 16.505(b)(2)(ii)(D), and 16.505(a)(4)(iii), the award notice for this

action will be synopsised on the Federal Business Opportunities website and this justification will be made publicly available within 14 days of award.

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

8. Market Research: VA's technical experts conducted various levels of market research including posting a Request for Information (RFI) and reviewing product literature on similar software products. Specifically, VA posted a RFI in December 2017 to ascertain the ability of any other brand name software products or services to meet VA's needs. Responses were received from 6 sources, 4 of whom provided only a VMware solution. Only two sources provided alternative solutions, they included Microsoft and Turbonomics. Based on an extensive technical review of both Microsoft's solution and Turbonomics solution, VA's technical experts determined that both did not meet all of VA's interoperability, compatibility, and functional requirements as outlined in Section 5 of this Justification. Microsoft was contacted on July 30, 2018 and advised of the Government's assessment that it could not meet VA's needs. No objections were received. Turbonomics was contacted on January 9, 2018 and advised of the Government's assessment that it could not meet VA's needs. No objections were received.

In addition, from January 2018 to April 2018, VA technical experts assessed various software offerings from Red Hat and SolarWinds. Specifically, VA's technical experts reviewed product literature, online materials, vendor presentations, and other technical meetings. Based on an extensive technical review of both Red Hat's solution and SolarWinds solution, VA's technical experts determined that both did not meet all of VA's interoperability, compatibility, and functional requirements as outlined in Section 5 of this Justification. During the technical meetings, both sources acknowledged that they could not meet all of VA's requirements.

Based on the above research, VMware software is the only software product that meets the Government's requirements.

The continued VMware brand name support is essential in order to maintain uniformity and common troubleshooting and service practices. Given the proprietary nature of the VMware software code, it would not be possible for another brand of software to provide software support for the current VMware license inventory. In November 2017, VA published a Request for Information (RFI), via Federal Business Opportunities, to assess the current marketplace for an alternative to seamlessly augment and expand the comprehensive integrated environment provided by the VMware products currently in place at VA. VA received five responses to this RFI. Four vendors offered a VMware solution, providing the capability to seamlessly augment and expand VA's existing

VMware footprint. One vendor offered a complete Microsoft replacement solution. As discussed earlier in this section, VA evaluated various hypervisor software offerings. Specifically, the Microsoft response was incomplete and could not seamlessly augment and expand VA's existing virtualization footprint. A more detailed analysis of Microsoft's response and their hypervisor capabilities is on file with VA.

In January 2018, VA conducted market research, by issuing a second RFI, via FBO, targeted at resellers of VMware products. VA received responses from fifteen resellers indicating competition at the reseller level. Only authorized resellers can provide software maintenance updates, patching and service support for VA's existing and planned VMware products. The software is proprietary to VMware and therefore the software support/maintenance updates can only be provided by VMware through authorized resellers. Additional market research was conducted in May 2018 utilizing the NASA SEWP V GWAC Provider Lookup Tool. It was determined that there are 9 authorized SDVOSB resellers of the required VMware products who are NASA SEWP GWAC holders

9. Other Facts:

10. Technical and Requirements Certification: I certify that the supporting data under my cognizance, which are included in this justification, are accurate and complete to the best of my knowledge and belief.

[Redacted]

11. Determination of Best Value: I hereby determine that the anticipated price to the Government for this contract action will be fair and reasonable based on anticipated price competition and discounts among NASA SEWP V GWAC holders who are resellers of the required VMware ELA products. NASA SEWP V GWAC holder catalog prices have already been determined to be fair and reasonable. Additionally, price analysis shall be conducted by comparing the successful quote to the Independent Government Cost Estimate.

[Redacted]

12. Procuring Contracting Officer Certification: I certify that this justification is accurate and complete to the best of my knowledge and belief.

[Redacted]

13. Legal Sufficiency Certification: I have reviewed this justification and find it adequate to support a limited source award and deem it legally sufficient.

[Redacted]

Concurrence

In my role as Head of Contracting Activity, based on the foregoing justification, I hereby approve the acquisition of a VMware Enterprise License Agreement that includes software maintenance on a limited sources competition basis, pursuant to the authority cited in paragraph 4 above, subject to availability of funds, and provided that the property and services herein described have otherwise been authorized for acquisition..

[REDACTED]

Approval

Based on the foregoing justification, I hereby approve the acquisition of an VMware Enterprise License Agreement that includes software maintenance on a limited sources competition basis, pursuant to the authority cited in paragraph 4 above, subject to availability of funds, and provided that the property and services herein described have otherwise been authorized for acquisition.

[REDACTED]