

JUSTIFICATION
FOR AN EXCEPTION TO FAIR OPPORTUNITY

1. Contracting Activity: Department of Veterans Affairs (VA)
Office of Acquisition Operations
Technology Acquisition Center
260 Industrial Way West
Eatontown, NJ 07724
2. Description of Action: The proposed action is for a firm-fixed price (FFP) delivery order issued under a National Aeronautics and Space Administration (NASA) Solutions for Enterprise-Wide Procurement (SEWP) V Government-Wide Acquisition Contract (GWAC) required for the procurement of brand name Mellanox Ethernet switches, associated hardware, and warranty support.
3. Description of the Supplies or Services: The Department of Veterans Affairs Office of Information & Technology (OI&T) Business Intelligence Service Line (BISL) has a requirement to expand and upgrade the network capability at the Austin Information Technology Center (AIRC) to handle more bandwidth at lower latency to support the large scale and high performance required by the Cerner data migration. The proposed action is to procure the following brand name Mellanox Ethernet switches: Two 32-port redundant core 100GB Ethernet switches (Mellanox SN2700); Four 16-port top-of-the-rack 100GB Ethernet switches (Mellanox SN2100); two switches per rack plus necessary cabling to upgrade two racks in the Corporate Data Warehouse (CDW) environment. The 100GB Ethernet switches feature high throughput and low latency, allow backwards compatibility with the existing CDW 1GB Ethernet and 10GB Ethernet devices, and support up to 100GB Ethernet to accommodate the increasing bandwidth and performance requirements of Cerner data migration activities in the CDW environment. The Cerner data migration effort will involve populating Cerner's cloud-based population health management platform (HealthIntent) with an enormous amount of data (estimated 300 terabytes (TB)) from VA's Veterans Information Systems and Technology Architecture (Vista) shadow servers. These shadow servers collect data from all 130 VA medical centers. The migration effort also requires that the InterSystems Caché databases transform and translate the Vista data so that HealthIntent can not only read it but also interpret it correctly. The Government intends to connect servers, also being procured to support Cerner data migration activities, to the Mellanox 100GB Ethernet switches to build an infrastructure that will strengthen the Vista shadow servers and InterSystems Caché databases to support this massive data migration effort. The 100GB Ethernet switches provide increased bandwidth capacity and support Remote Direct Memory Access (RDMA) over Converged Ethernet (RoCE). These features will increase both the speed at which devices within the infrastructure can communicate and the speed for failover and redundancy. The Contractor shall also provide a five year, 24/7 warranty with defective media retention service.
4. Statutory Authority: The statutory authority permitting an exception to fair opportunity is Section 41 U.S.C. 4106(c) as implemented by the Federal Acquisition Regulation (FAR) Subpart 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 authorized resellers for the required brand name Mellanox switches. CDW's technical experts have determined that the redundant core 100GB Ethernet switches (Mellanox SN2700) and the top-of-the-rack 100GB Ethernet switches (Mellanox SN2100) must support cut-through capability at line rate on all ports, for any packet size, and at any speed from 1GB to 100GB. This functionality is required by VA to ensure storage is not slowed due to network congestion. CDW technical experts determined that no products other than the Mellanox SN2700 redundant core 100GB Ethernet switches and the Mellanox SN2100 top-of-the-rack 100GB Ethernet switches meet this VA functional requirement. Failure to procure the brand name Mellanox switches will create vulnerabilities within the CDW environment and put protected Veteran and health data at risk as this data is transformed and transferred. The Cerner data migration effort will require efficient transformation and transfer of massive amounts of data, and VA needs to enhance its network and infrastructure to meet this demand. Without the Mellanox 100GB Ethernet switches, VA cannot support this crucial data migration effort.

Finally, the aforementioned switches are proprietary Mellanox products; therefore, only Mellanox or its authorized resellers have the access to the proprietary data necessary to provide warranty services for the switches. The proprietary data is required to ensure the switches are properly operational and defects properly resolved. Access to Mellanox proprietary data is required to provide the required warranty services on the switches. Failure to procure the brand name warranty services may prohibit VA's ability to maintain the operational status of the switches, thereby presenting a risk to the Veterans' health data being transformed and transferred in the CDW environment.

6. Efforts to Obtain Competition: Market research was conducted, details of which are in the market research section of this document. This effort did not yield any additional sources that can meet the Government's requirements. It was determined however that limited competition is viable among authorized resellers for this brand name item. In accordance with FAR 16.505(a)(4)(iii)(A)(2), this justification will be provided with the solicitation to all appropriate NASA SEWP V GWAC holders. This action will be synopsisized at award on the Federal Business Opportunities Page and the justification will be made publicly available.

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: Market research was conducted during July 2017 by the CDW project team who researched the respective internet sites of the following companies: Arista, Dell, Cisco, Fortinet, Juniper, Netgear, Linksys, Zyxel, and Extreme Networks. This research consisted of assessing these products against the Government's

requirement. The researchers assessed whether the switches can support cut-through capability at line rate on all ports, for any packet size, and at any speed from 1GB to 100GB. Cisco Nexus 9000 switches do not support speeds from 1GB to 100GB in any form other than large chassis-based switches which will not fit in in the CDW equipment racks for the core or top-of-the-rack functionality. Fortinet FortiSwitch switches support only speeds up to 40GB; it does not support 100GB. Arista, Dell, Juniper and Extreme Networks switches support only speeds from 10GB to 100GB; it does not support 1GB. Netgear and Zyxel switches support only speeds up to 10GB; it does not support 40GB or 100GB. Linksys switches support only 1GB; it does not support 10GB – 100GB. The results of the market research support the fact that only Mellanox core switches (Mellanox SN2700) and top-of-the-rack switches (Mellanox SN2100) switches can meet the Government's functional requirements.

Additional market research was conducted by utilizing the Provider Lookup tool on the NASA SEWP V GWAC website which identified numerous resellers of the required Mellanox switches and warranty including 12 prospective Service-Disabled Veteran-Owned Small Business (SDVOSB) GWAC holders. Therefore, limited competition is anticipated on NASA SEWP V among authorized resellers of the required brand name Mellanox Ethernet switches.

9. Other Facts: None.