LIST OF ITEMS FOR PUBLIC BIDDING CY2023
DELIVERY, DEPLOYMENT, AND COMMISSIONING OF ADDITIONAL SERVER COMPONENTS TO SCALE THE EXISTING HYPER-CONVERGED INFRASTRUCTURE (HCI) SERVERS

NO	ITEM CODE	ITEM DESCRIPTION	QTY	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
1	ASC23-01	**DELIVERY, DEPLOYMENT, AND COMMISSIONING OF ADDITIONAL SERVER COMPONENTS TO SCALE THE EXISTING HYPER-CONVERGED INFRASTRUCTURE (HCI) SERVER**	1	lot	7,500,000.00	7,500,000.00
		SCOPE OF WORKS: **A. General Requirement** The supplier shall: 1. Design, deliver, supply, install, integrate, and configure the necessary and applicable additional server components to the existing NCMH HCI server. 2. Ensure and guarantee that the procured and delivered additional server components are compatible and appropriate to the existing NCMH HCI servers. 3. Configure the existing HCI virtual networking to have network segmentation through VLANs between environments such as testing, management, and production – DMZ, and LAN. 4. Unpack, assemble/upgrade the existing Hyper Converged Platform remote office/branch office license into HCP standard licenses; 5. Mount, install, and boot the necessary service packs, patches, service packs, and hotfixes to the existing hypervisor or operating system; 6. Compatibility issues such as virtual machine failures, virtual networking issues, vSAN issues, vCenter issues, and hypervisor issues that arise from the scaling of physical components and resources are to be resolved by the bidder. 7. Assess existing HCI setup and configuration. If the existing HCI server issues are discovered, the bidder will fix the problem with no additional payment. 8. Extend the existing physical servers and hypervisor warranty and production support. 9. During the installation of additional server components, fixes of physical hosts, and migration of virtual machines, the bidder must ensure that it will only have no or minimum business disruption and downtime. The bidder must consult the system administrator for their preferred schedule before doing any major installation and/or fixes. 10. Bidder must provide, install and update vendor improvements/enhancements to the procured HCI servers and/or any of its server components after the date of submission of the				

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proposal and before the date of deployment without additional cost on NCMH.

11. Any improvement and/or supplemental to the conceptual design, quantity, and/or deemed necessary to attain functionality, integrity, security, and completion of the project must be shouldered by the bidder with no additional cost.
12. Bidder must provide full course training on the existing HCI Technology:
    a. Curriculum-based training from a certified training center for two (2) NCMH system administrators on the following but not limited to installing, configuring, administration, management, policy creation, virtual networking, automation, backup, and troubleshooting which includes Hypervisor/Virtualization.

B. Technical Specifications

The proposed additional server components will be the following:

- Hardware Requirements
  - Additional server components will be required on each of the four (4) server nodes.
    1. 192 GB (12x16 GB RDIMM) of DDR4 Memory.
    2. One (1) x 800GB NVMe SSD
    3. Six (6) x 1.2 TB 10K SAS HDD
    4. Must support the existing NCMH HCI server/virtualization technology
    5. Must include all required cables, and components needed to make the HCI servers operational after the update/upgrade.
    6. Must supply, deliver, install and configure all the needed or additional switches, transceivers, connectors, and cables to ensure proper connection.

- **Software Requirements**
  1. System Architecture
     a. The additional storage and memory will support the existing virtualization software; seamlessly add the resources to the existing NCMH vSAN.
     b. The additional storage components will not require external SAN storage and must be utilized with the existing distributed SAN, including integration of existing and additional storage. This must seamlessly allow data storage with two to three copies to meet fault tolerance, reliability, and disaster recovery measures.
     c. The additional server physical components to the existing system must adopt the scale-out distributed storage architecture and can support

		data migration and load balancing during resource expansion and reduction. d. The additional resources must support seamlessly the self-serving support function. System administrator, if requires to scale out the computing, storage, and memory resources, only needs to access the software-defined management portal to configure additional resources. e. The additional server components must be discovered seamlessly by automatic hardware discovery and configuration. f. Additional server components must support seamlessly the existing thin provisioning while delivering the same volume read/write performance as thick provisioning. g. The proposed additional server components must be able to support seamlessly the existing hybrid setup. h. Proposed additional server components will be integrated into the existing single storage pool that will hold all the disks within the existing HCI cluster to optimize the distribution of additional server resources; to ensure the performance and SLA. i. The additional storage and memory must support Self Encrypting Disks (SED) • **Hyper-Converged Platform** 1. Bidder will upgrade the existing Hyper-Converged Platform (HCP) remote office/branch office license into the same HCP standard licenses. 2. The prospective bidder must have a customer support center near Mandaluyong City. 3. Provision of a virtualization management console that acts as a central management for hypervisor hosts. 4. Shall be able to configure, create, deploy and migrate virtual machines. 5. Can support the following but are not limited to the following requirements: a. Power on/off/reset; b. Restart/shutdown; c. Non-disruptive migration to other nodes in the cluster (Live Migration, vMotion, etc.) and; d. Web and remote console 6. The HCP must perform live migration whether manually or automatically from one live host to another without business disruption. a. Moving by restarting the virtual machine to another host				

		b. Moving without rebooting the virtual machine 7. The HCP must support storage live migration from one live disk to another. 8. The HCP can support x86 OSs including Windows Server 2003/2008 R2 and 2012, Windows 7, Windows 8, and Windows 10. 9. HCP licenses must be an open or volume license that is perpetual and transferrable, with an active maintenance subscription for at least three (3) years including upgrades, updates, and technical support with at least 10 hours per weekday, with 4 business hours response time through web and/or phone • **Data Resiliency and Data Protection** 1. Provide a distributed storage system that supports 2/3 copies of data. 2. Must support any 2 disks failure without business disruptions and data corruption. 3. Must support at least one server/physical node failure and can be expanded through additional nodes. 4. Must support redundancy strategies through computing, network, storage, power supply, and fan modules. 5. Must have the ability to perform stretched clusters natively for RPO=0 environments. **EXPECTED DELIVERABLES:** 1. An Inception Report describing the activities, methodology, milestones, time table and resources to implement this project 2. 768 GB, 12x16 GB RDIMM for each physical node of DDR4 memory 3. Four units of 800GB NVMe SSD deployed one per node. 4. Four sets of Six (6) 1.2 TB 10K SAS HDD 5. 8 licenses for HCP Standard Licenses (2 licenses per physical node) 6. 8 Licenses for HCP Basic Support (2 licenses per physical node) **IMPLEMENTATION ARRANGEMENTS INCLUDING ROLES AND RESPONSIBILITIES** **A. Within the project duration NCMH shall:** 1. Provide a technical working committee to supervise and monitor the project. 2. Provide a technical contact person 3. Facilitate access to information, documents, facilities, and others needed by the contractor to perform services. 4. Assist in coordinating with and issuing instructions as may be necessary or appropriate to other government agencies for the prompt and effective implementation of the services.				

		5. Approve the proposed working schedule of the supplier. 6. Provide temporary ID to all personnel involved in the installation 7. Grant authorized representative access to premises as well as equipment and all facilities located therein to perform the supplier's obligations. 8. Make prompt review and revision, if necessary, which shall be not later than ten (10) working days from receipt of the work produced. 9. Pay the contractor upon presentation of requisite documents, the amount due him upon receipt of claims supported with documents subject to acceptance by the NCMH **B. Within the Project duration the winning Contractor/Supplier shall:** 1. Complete delivery, installation, configuration, and commissioning within 60 days calendar from the receipt of the notice to proceed. 2. Perform services professionally based on industry standards and always protect the interest of the government in general and NCMH in particular. 3. Provide a list of certified engineers/technical support team with addresses and contact numbers, involved, and other activities related to the project. 4. Secure the NCMH permits, licenses, and approvals that are or may be necessary to perform services. 5. Provide a chief officer or program manager who will be directly in charge of managing the project and day-to-day contact personnel in charge of operations. 6. Submit a proposed working schedule for approval of NCMH and secure security pass and working permit on their site. 7. Ensure that all personnel involved in the project must be in proper uniform/ ID cards because it will be their identification from the rest of NCMHs employees and visitors. 8. Protect the privacy of NCMH and ensure that all confidential information and data on its ICT infrastructure are kept confidential. **WARRANTY PERIOD AND SERVICES** 1. Period: Three (3) years warranty is required on all delivered goods and shall take effect immediately after final acceptance of the project with NCMH. 2. Product upgrades: Hardware firmware or software upgrades without additional cost to NCMH. 3. Provide an immediate RMA or backup unit at any time the HCI equipment is not working or under repair.				

4. Preventive and Remedial Services: Preventive maintenance services were conducted semiannually via remote access and with coordination with NCMH System Administrators and annual on-site visits during the warranty period.
   a. Provision of usage statistics
   b. Health Checks on HCI System and Server environment – Monitor the hardware health and ensure that all back-end services including compute, storage, memory, networking and virtualization.
   c. Capacity Management – provider must check HCI System and Server environment and monitor capacity to ensure utilization stays within the requirement of NCMH.
   d. Log analysis on Health Checks on Virtual environment – Monitor the virtual environment to ensure uptime. Take action on any alerts or errors.
5. Service Level Agreement
   a. 95% uptime
   b. Response time by various classes and severity of problems with 12 hours as maximum from notice by NCMH

Level	Definition	Response Time
System Down	Hospital HCI	Immediate
Critical	Business stoppage with significant user or client impact on staff productivity and delivery of NCMH public service and/or mandate	Within 1 hour
Urgent	High impact causing immediate work stoppage and delivery Within 2 hours of mandates and functions	Within 2 hours

Important	No productivity impact	Within 4 hours
Monitor	No further action required beyond monitoring	Within 8 hours
informational	Request for information	Within 12 hours

6. Provider Technical Support
   a. Must have experienced and trained technical staff or engineers under its direct employment and supervision in rendering the required maintenance
   b. Help Desk support 24/7 including holidays
      i. Single point of contact
      ii. ii. Support by phone, text, email, or other online/electronic means
      iii. Initial response is to address issues through step-by-step instructions and guidance to 8 Hospitals.
      iv. Unresolved issues or problems shall be serviced on-site. Once onsite, the service provider/ or supplier must repair the malfunctioning equipment, software, and hypervisor provided equipment has been operated in normal conditions.
   c. Quarterly reports containing information on actual performance achieved, compared to service levels agreed upon

TRAINING

1. Curriculum based Training from a certified training center for two (2) NCMH system administrators on the following but not limited to installing, configuring, administration, management, and policy creation, automation, backup, and troubleshooting of the proposed Hyper-Converged Infrastructure which includes Hypervisor/Virtualization.

QUALIFICATION OF THE SUPPLIER

1. Bidder must attach to his/her proposal an assurance from his/her principal that the items called for will be supplied in full and on time
2. Must be in the ICT service for at least ten (10) years of continuous existence and engagement in the business of providing ICT services in the Philippines.
3. Must be an IT solution provider sector and must have experience in HCI, Virtualization, Hypervisors, Blade Servers, and Enterprise Storage systems and equipment.
4. Bidder should have locally based Manufacturer Certified Engineers who will do the installation, configuration, and after-sales support of all

		proposed equipment for virtualization, and hyper-converged infrastructure. 5. All proposed items must be certified genuine and brand new. Bidder must be an authorized Philippine Distributor, Dealer or Value-Added Reseller of his/her proposed products and must provide local technical services on these **ADDITIONAL REQUIREMENTS TO BE SUBMITTED WITH TECHNICAL PROPOSAL** 1. Warranty Proposal a. Period: Three (3) years warranty is required on all delivered goods and shall take effect immediately after final acceptance of the project with NCMH. b. Product upgrades: Hardware firmware or software upgrades without additional cost to NCMH. c. Provide an immediate RMA or backup unit at any time the HCI equipment is not working or under repair. 2. Company Profile that must show evidence that the firm: a. Must be in the ICT service for at least ten (10) years of continuous existence and engagement in the business of providing ICT services in the Philippines. b. Must be an IT solution provider sector and must have experience in HCI, Virtualization, Hypervisors, Blade Servers, and Enterprise Storage systems and equipment 3. Certificate of end-user/technical staff acceptance statement relative to the installed base of their Hyper-Converged Infrastructure solution including authority for TWG to visit the site if locally installed. 4. List of authorized Customer support/service centers near Mandaluyong City. The list must indicate the complete and existing business address, telephone and fax number/s, email address, and complete name of the contact person. 5. Original or downloaded from the internet technical brochure/datasheet or other forms of manufacturer's un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data, etc. 6. The bidder shall submit any of the following whichever is applicable: a. If the bidder is the manufacturer, certify that the bidder manufactures the products/items; or b. If the bidder is an Exclusive/Authorized Distributor or Dealer of the products/items, a Certificate or Contract from the manufacturer must be provided as proof that the bidder is an Exclusive/Authorized Distributor or Dealer of the products/items; or				

		c. If the bidder is an agent of the exclusive distributor or dealer the following must be provided: i. Certificate or Distributorship/Dealership Agreement by the Manufacturer with the distributor or dealer; and ii. Contract between the distributor/dealer and the bidder. 7. Certification from Prospective Bidder or Supplier or Manufacturer: a. Certification that the supplier shall issue a Warranty Certificate of three (3) years on parts and services upon delivery, inspection, and acceptance as well as one basis for payment. b. Certification from the manufacturer or local exclusive distributor that the warranty shall not be affected by a change of dealer; c. Certification of After Sales Service that components/parts for the Backup storage solution shall be available at the authorized Philippine Service Center/s for a period of at least three (3) years after the warranty period; d. d. Certification that the supplier has the capacity for corrective and preventive maintenance of the Backup Solution Storage; and that maintenance and technical support staff and engineers must be available locally under its direct employment and supervision and have the experience and training to al staff or engineers. 8. Certification from the manufacturer or main authorized distributor in the Philippines that all proposed items will not reach its END-OF-LIFE (products) and END-OF-SUPPORT (services) in 3 years' time from the date of award of contract. 9. Draft of Service Level Agreement 10. Training Proposal a. Training proposal shall be: i. Curriculum based Training from a certified training center for two (2) NCMH system administrators on the following but not limited to installing, configuring, administration, management, and policy creation, automation, backup, and troubleshooting of the proposed Hyper-Converged Infrastructure which includes Hypervisor/Virtualization. 11. Prior Contract Signing a. An Inception Report describing the activities, methodology, milestones, timetable, and resources to implement this project; b. Warranty proposal for three (3) years; c. Draft post-warranty comprehensive preventive maintenance costs including list and prices of major spare parts for the next three (3) years after warranty. 12. Prior to Payment a. A fully operational, secured and, seamless scaled Hyper-Converged Infrastructure;				

		b. One (1) soft copy and hard copy each of Operations Manual, or User's Manuals in English Language; c. Warranty Certificate for three (3) year on parts and services including the licenses; and d. d. Post warranty comprehensive preventive maintenance costs including list and prices of major spare parts for the next three (3) years after warranty. **ACCEPTANCE** • Certificate of acceptance shall be issued upon completion of the test and evaluation.				
				TOTAL	**PHP 7,500,000.00**	

Submitted by:

for:

WILLIAM WALLACE L. ARIAS, ECE
(End-User)

Recommending Approval:

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