Republic of the Philippines
Department of Budget and Management
PROCUREMENT SERVICE -
PHILIPPINE GOVERNMENT ELECTRONIC PROCUREMENT SYSTEM
BIDS AND AWARDS COMMITTEE

Bid Bulletin No. 1
07 November 2023

PUBLIC BIDDING NO. 026-2023

Supply, Delivery, Installation, Configuration, Commissioning, and Testing of Data Center for the Procurement Service - Department of Budget and Management (PS-DBM)

Issued pursuant to Sec. 22.5 of the IRR of R.A. 9184 to respond to bidders' questions raised during the pre-bidding conference last **30 November 2023** and written queries received within the prescriptive period of filing:

CLARIFICATIONS / AMENDMENTS

ITEM NO.	REFERENCE	CLARIFICATION / RESOLUTION / AMENDMENT
1	Page 9 Section I: Invitation to Bid Deadline for Submission: Thursday, 14 December 2023; 1:30 pm *Clarification:* *Given the weight of document preparation both technical and financial, May we request to PS-DBM IBAC to reconsider the bid submission to be moved to 14 days from the issuance of Bid Bulletin responding to the written queries of prospective bidders.*	No. The original timeline shall be retained.
2	Page 13 Section II: Instructions to Bidders ITB Clause 5.3 Pursuant to Section 23.4.1.3 of the 2016 revised IRR of RA No. 9184, the Bidder shall have an SLCC that is at least one (1) contract similar to the Project the value of which, adjusted to current prices using the PSA's CPI, must be at least equivalent to: For the procurement of Non-expendable Supplies and Services: The Bidder must have completed a single contract that is	The "civil works component" mentioned in the Bid Data Sheet Clause 5.3.a. refers to the "Site Preparations" under Component item no. 1 of the Terms of Reference (TOR) which identifies the following: - Civil Works - Mechanical Works - Electrical Works - Structured Cabling

RR. Road, Cristobal St., Paco, Manila
www.ps-philgeps.gov.ph
(02) 8-290-6300 | 8-290-6400

DBM Compound, General Solano Street, San Miguel, Manila
www.philgeps.gov.ph
(02) 8640 6906 | 8640 6907 | 8640 6908 | 8640 6909

		similar to this Project, equivalent to at least fifty percent (50%) of the ABC. *As per the Bidding Presentation on November 30, 2023, it was stated that the 50% SLCC may come from a project with components and services related to Data Center excluding structured cabling.* *May we propose and confirm the statement on the Pre-Bid Presentation to be used on the SLCC document and will not base on the title of the project.*	
3	Page 19 Section III: Bid Data Sheet ITB Clause 5.3. For this purpose, contracts similar to the project shall be; a. Any contract related to the Data Center with a cost component of more than fifty (50%) for the IT goods and services excluding civil works component b. Completed within five (5) years prior to the deadline for the submission and receipt of bids. *Clarification:* • *Given that the ABC for the project is 110,000,000.00, therefore the SLCC related to the Data Center project is 50% of the ABC which is 55,000,000.00.*	The understanding is correct.
	• *May we clarify if the cost component referring to at least more than 50% for the IT good and services excluding civils works is a total of at least 55,000,000.00 or 27,500,000.00*	To clarify, the total contract amount of the SLCC should be at least Php 55,000,000.00 in a single contract, which is 50% of the ABC. Further, the IT goods and services should be more than 50% of the submitted contract which is Php 27,500,000.00.
	• *Will PS-DBM consider the SLCC for the Supply, Delivery, Installation, Configuration, Commissioning, and Testing for various IT/ICT Equipment?*	Yes. As long as the various IT/ICT Equipment are used for the data center.
4	Page 19 Section III: Bid Data Sheet Single Largest Completed Contract	This is to approve that the SLCC should have been completed within ten (10) years prior to the deadline for

	May we request to lift the prescription period of the SLCC or make it longer from 5 years to 10 years and to also allow an aggregate of three (3) projects. *Reason: This is a novelty project which involves specialty works in nature and complexity of building a data center facility. The last 3 years, 2020, 2021, and 2022, were practically a pandemic quarantine period which greatly affected the economic activity in our country. Thus, projects involving data center facilities and equipment are nil to almost none. It is only in 2023 that economic activity is anticipated to pick up from the pandemic lockdown. For this reason, we request consideration that the SLCC be extended from 5 to 10 years and to allow at least three (3) aggregately completed contracts.* Completed within ~~five (5)~~ ten (10) years prior to the deadline for the submission and receipt of bids.	the submission and receipt of bids. However, aggregated contracts are not allowed.
5	*May we request for the single largest completed contract to be composed of two completed PO wherein the first PO must not be less than 25% of the ABC?*	No. Please refer to item no. 3 of this Bid Bulletin No. 1.
6	*Under Single Largest Completed Contract (SLCC), can we present Aggregated Contract as long it's limited to 2 Projects only at 25% of the total ABC?* *PHP27,500,000 x 2 Project = PHP 55,000,000.* *Two (2) Project minimum of PHP 27,500,000 can confirm that Bidder is eligible to execute and comply with the project.*	No. Please refer to item no. 3 of this Bid Bulletin No. 1.
7	Page 36 Section VII: Technical Specifications Component 1 A. General Scope *Will PS-DBM / PhilGEPS provide storage room or temfacil on the PS Complex for storage and quarters of the contractors?*	The PS-DBM will provide "space" to allow the winning contractor to set up a temporary facility for storage and quarters.
	Page 36 Section VII: Technical Specifications	220 - 240 volts

	Component 1 A. General Scope *xxx* 4. Electrical *- May we clarify what the existing voltage input is?*	
	- Do we need to provide a new line from EE?	Yes.
	- Are we to change the feeder line?	No.
	- Will this be a new separate cable layout or total refresh of cables?	Yes.
	- What is your required power voltage?	Please refer to Component 2 of the Technical Specifications of the Bidding Documents. Component 2.F: Input Voltage
8	Page 36 Section VII: Technical Specifications Component 1 *Please confirm that the 400 elevation to be raised is fixed and not raised flooring with concrete topping.* *Please indicate the minimum thickness of concrete topping if 4" or 6".*	Yes. The elevation to be raised is 400 mm. This is to clarify that the minimum thickness of concrete topping is 6 inches.
9	Page 36 Section VII: Technical Specifications Component 1 C. Mechanical Works The contractor shall install at least three (3) Units 30KW capable Cabinet Type Precision Air Conditioning Units aligned with the Data Cabinets with the respective outdoor Units to pre-arrange location and at least ~~Four (4)~~ two (2) units of 3 TR wall/ceiling mounted / floor standing Split Air Conditioning Unit, Inverter type with the respective outdoor units to pre-arrange location sufficient for the data center cooling.	This is to clarify that the requirement is three (3) units of Precision Air Conditioning Units (PACU) with the set up of two (2) running and one (1) back up. Further, this is to amend the requirement to at least two (2) units of 3TR wall/ceiling mounted / floor standing Split Air Conditioning Unit.
10	Page 36 Section VII: Technical Specifications Component 1 *Please confirm quantity of at least 3 Units PACU Units to be installed and delivered as*	Please refer to item no. 9 of this Bid Bulletin No. 1.

	compared to Item C.1 which is mentioned to require only 2 Units	
11	Page 36 Section VII: Technical Specifications Component 1 Please confirm also quantity (4 Units) to be installed for Split ACU inverter type as compared to Item C.2 which mentions to require 2 Units	Please refer to item no. 9 of this Bid Bulletin No. 1.
12	Page 36 Section VII: Technical Specifications Component 1 *For the Gas Tank of Fire Suppression(Item B.1), does the location implies the the Gas Tank be installed "over the Ledge" or "Under (Beneath the Ledge)", because subject Gas Tank is Heavy and servicing will be a hazzle.* *Suggestion is to locate it at the best Corner of the proposed Data Center Floor Layout.* **Gas Tank:** The contractor shall fabricate a metal mounting for the Fire Suppression Gas Tank which should be located at the ~~ledge of the PS-DBM building adjacent to the Server room~~ best corner of the proposed Data Center Floor Layout provided that it will be included in the layout of approved inception report.	This is to amend that the Gas Tank of Fire Suppression can be placed at the best corner of the proposed Data Center Floor Layout provided that it will be included in the layout of approved inception report.
13	Page 36 Section VII: Technical Specifications Component 1 *For Item C: which mentions design and build, we are allowed to propose a different size of PACU ranging from 27 to 30KW, as the 30KW rating pertains to branded supplier.*	The original rating requirement is retained.
14	Page 37 Section VII: Technical Specifications Component 1 *During Pre-Bid, it mentioned that you will be supplying 400Volts, 3Phase Power, however during Survey, the Power supply available is 230 Volts, 3 Phase. Please confirm the available Power Supply to be provided as this will be very important for the UPS and PACU Units. which mostly*	This is to clarify that the PS-DBM has an existing 220 to 240 Volts, 3 Phase. If a transformer is required for the offered equipment (UPS and PACU), it can be placed on the existing electrical room.

	requires 400 Volts, 3 Phase. Otherwise, Transformer will be needed for this equipment and location of such Transformer is also crucial. Where will this be located if the Power supply is 230V, 3Phase?	
15	Page 38 Section VII: Technical Specifications Component 2 Uninterrupted Power Supply (UPS), Brand New xxx G. Battery xxx 6. Battery Service Life: ~~5 years~~ Equal to warranty of one (1) year Warranty 3 years warranty for the UPS and 1-year warranty for Batteries. May we clarify the Service Life mentioned in the reference text? Battery service life depends on various considerations and maybe hard to pre-determine. We recommend using the same text "1-year warranty for Batteries" as the basis for minimum Service Life. Battery Service Life/Warranty : 1 year Contractor will still provide support and replacement within the warranty period.	This to amend the battery service life that should be equal to warranty of one (1) year.
16	Page 38 Section VII: Technical Specifications Component 2 TOR, Component 2, Page 38, Item G. Battery: 1. Type: Valve Regulated Lead Acid (VRLA) 2. Nominal Battery voltage: +/-192 VDC (2×96 cells at 2 V) 3. Float voltage: +/-218 VDC (2×96 cells at 2.27 V) 4. End of discharge voltage (full load): +/-154 VDC (2×96 cells at1.6 V) 5. End of discharge voltage (no load): +/-168 VDC (2×96 cells at 1.75 V) 6. Battery Service Life: 5 years	This is to clarify that the original requirement is retained.

	7. Runtime: 15 minutes at full load *Clarification:* • *May we clarify if the bidder can offer different battery specifications based on actual configuration of proposed solution?*	
17	Page 39 Section VII: Technical Specifications Component 3 Based on Section VII. Technical Specifications under the Terms of Reference a. Component 3. Power Distribution Unit (PDU) - Brand New, Line Item F, "Shall support Fault- Tolerant Daisy Chaining within RSTP. Supports up to 40 rPDUs." *We'd like to clarify that the daisy chaining will be used to monitor the Rack PDUs to be supplied. In line with this, we recommend that each of the PDUs to have their own IP Address since it will be connected to the DCIM included in the deliverables. A daisy chain presents risk in terms of monitoring if one of the links are interrupted, the whole chain of monitoring will be disrupted as well.* *Consequently, Is it possible to provide a PDU with at most four (4) units connected through network port sharing in order to minimize the use of IP Address if this is limited on your end?*	This is to clarify that the original requirement is retained.
18	Page 40 Section VII: Technical Specifications Component 3 *XXX* Power Distribution Unit (PDU), Brand New M. Display and Management 1. User-interactive ~~LCD~~ or LED display for local access The user-interactive LCD display for a PDU is a feature of one PDU brand. *Can we generalize the statement to:*	This is to include "or LED" in the user-interactive display for local access.

		Should have a LCD or LED Display option.	
19		Page 40 Section VII: Technical Specifications Component 4 Precision Air Conditioning Unit (PACU) - Brand New Component 4. Precision Air Conditioning Unit – Brand New, Line Item K. "Humidifier Input kW: 1950W" *We'd like to clarify if you mean the input power or the humidification capacity of the PACU as this data is needed for the control of humidity inside the data center area. If this is the case, we'd like to check if a 3kg/hr humidification capacity is acceptable.*	This is to clarify that item K. Humidifier Input, kW: 1950W pertains to the power of the Humidifier.
20		Page 39 and 41 Section VII: Technical Specifications Component 2 and 4 *From Section VII. Technical Specifications under the Terms of Reference,* *Component 2, Item J.3 "Must have an Authorized Service Partner/Center in Metro Manila.* *Component 4, Item R "Must have an Authorized Service Partner/Center in Metro Manila"* *We'd like to check if you will also need additional certification expertise for the Critical Data Center Infrastructure such as UPS, PDU, PACU, EMS and DCIM since these are considered high risk? Bidder must be,* *- Tier 1 / Premier Partner / Elite Partner / Highest Level of Partnership of the reseller with the OEM brand ensuring that the bidder has the capability to offer the Critical DC Infrastructure solution and has the necessary technical skills to install the units. This will ensure that the prospective bidder is supported by the OEM to undertake the project* *- Certificate of at least one personnel for Data Center Fundamentals provided by the brand manufacturer ensuring that the*	This is to clarify that the original requirement is retained.

	bidder has technical personnel with the knowledge in terms of offering and creating solutions based on standards. - A three (3)-Tier technical support with local office and local hotline numbers speaking and certified local engineers speaking the local language in order to ensure that the communication between the PSDBM and the support for ease of communication 1. OEM (Brand Manufacturer) with at least twenty (20) years of presence in the Philippines 2. Authorized Distributor 3. Authorized Reseller	
21	Page 41 Section VII: Technical Specifications Component 4 User Interface: 4.3 inch at least 3.7 inches color touchscreen display to allow navigation between menus, select items and input information.	This is to amend that the user-interface must be at least 3.7 inches.
22	Page 41 Section VII: Technical Specifications Component 5 Component 5. Fire Detection, Alarm, and Suppression System – Brand New, Line Item B.13. "Must have an Authorized Service Partner/Center in Metro Manila" We'd like to request to have the Authorized Distributor Certificate to be considered for this project. The first level of after sales service will be the winning bidder, and the second level of after sales service will be the distributor. Rest assured that the distributor have trained personnel certified to do the after sales support which can be included in the bid submittal.	This is to clarify that the original requirement is retained.
23	Page 41 Section VII. Technical Specifications: Components 5. Fire Detection, Alarm, and Suppression System- Brand New Shall be C6F12O Factory Filled or NOVEC 1230, Nitrogen Inert Gas or FM200	This is to include FM200 (HFC227EA) Fire Suppression System in the requirement.

	(HFC227EA) Fire Suppression System, 98kgs. per cylinder *Kindly consider the FM200 (HFC227EA) Fire Suppression System for the following reasons:* *An inert gas system typically uses nitrogen and argon to reduce the oxygen level in each space. Reducing the amount of available oxygen essentially starves a fire to death which can lead into danger or harm around people. Additionally, inert gas system requires more agents to suppress fire, therefore taking up more space.* *FM-200 removes the heat or free radicals to extinguish the fire, which interferes with the triangle of fire's chemical reaction.* *FM-200 is safe with people around and safe to install in occupied spaces.* *When an FM-200 fire suppression system activates to put out a fire, no residue is left behind, and it is safe for equipment, electronics, and machinery.*	
24	Page 41 Section VII: Technical Specifications Component 4, Item R "Must have an Authorized Service Partner/Center in Metro Manila" *We'd like to check if you will be also needing additional certification expertise for the Critical Data Center Infrastructure such as UPS, PDU, PACU, EMS and DCIM since these are considered high risk? Bidder must be,* *- Tier 1 / Premier Partner / Elite Partner / Highest Level of Partnership of the reseller with the OEM brand ensuring that the bidder has the capability to offer the Critical DC Infrastructure solution and has the necessary technical skills to install the units. This will ensure that the prospective bidder is supported by the OEM to undertake the project* *- Certificate of at least one personnel for Data Center Fundamentals provided by the brand manufacturer ensuring that the bidder has technical personnel with the knowledge in terms of*	This is to clarify that the original requirement is retained.

	offering and creating solutions based on standards. *- A three (3)-Tier technical support with local office and local hotline numbers speaking and certified local engineers speaking the local language in order to ensure that the communication between the PSDBM and the support for ease of communication* *1. OEM (Brand Manufacturer) with at least twenty (20) years of presence in the Philippines* *2. Authorized Distributor* *3. Authorized Reseller*		
25	Page 42 Section VII: Technical Specifications Component 7 Component 7. Environmental Monitoring System (with GSM Modem), Brand New, Line Item C.7. "Support communication protocols of TCP/IP; HTTP; HTTPS; STP; SNMP v1, v2c, and v3; DHCP; DNS; Socks v4 or v5 Proxy Server; A-Link" *We'd like to clarify if SNMP v2c may be removed from the specifications since the TOR requires SNMP v3 with higher security protocols. In addition, we'd like to ask if we can remove the SOCKS v4 or v5 since we can already access the device through its IP*	This is to clarify that the original requirement is retained.	
26	Page 42 Section VII: Technical Specifications Component 7 Component 7.D Data Center Infrastructure Management System "Supported Devices: All: UPS Models, Chillers, Power Distribution Units (PDU), Rack PDUs, Computer Room Air Conditioners, Environmental Sensors, Power Metering Equipment, Surveillance Appliances, Static Transfer Switches, Standby Generators" *We'd like to clarify that since the Data Center Infrastructure Management Systems required to support the following critical data center*	This is to clarify that the original requirement is retained.	

		infrastructure included in the bid such as the UPS, PDUs, Computer Room Air Conditioners, Environmental Sensors, and others. We'd like to clarify if this critical data center infrastructure such as UPS, PDU, PACU, EMS/DCIM SHOULD BE OF THE SAME BRAND to ensure compatibility and interoperability of the components and to have single point of contact for service and trouble calls needed. This removes the need for multiple vendor coordination on the winning bidder's side which affects the Service Level Agreement needed for the aftersales service of these critical DC infrastructure that are considered high risk components.	
27		Page 45 Section VII: Technical Specifications Component 9-I, C, Hardware Requirements (PSDBM) *We'd like to clarify if the specifications refers to a hardware solution that the bidder will provide wherein the bidder will migrate two (2) clusters of servers with three (3) servers per cluster. If this is the case, what are the existing PS-DBM servers needed to be migrated to the HCI of PS-DBM?* *In addition for Item 4, component 9-I, we'd like to clarify if these specifications are hardware server specs to be provided by the winning bidder for PhilGEPS.*	Due to security issues and concerns, this shall be provided to the winning contractor.
28		Page 45 Section VII: Technical Specifications Component 9 *To which switch pair will the HCI clusters connect to? Will it be the 48-port switches or the 24-port switches? We recommend connecting the HCI clusters to 10G switches.*	This is to clarify that the configurations shall be discussed during the preparation of the inception report subject to the approval of the end-user.
29		Page 45 Section VII: Technical Specifications Component 9	Yes, it is HCI. As long as the combined multiple server requirement component into one of PhilGEPS covers the minimum requirement such as memory, storage, and CPU

	For the Philgeps Server requirements from page 46-53, are they open to converting those physical servers into a virtual environment that has the same (or higher) resources, but will be a lower server count?	shall comply by the Bidder. But do not mix with the physical server of the PS-DBM requirement.
30	Page 45 Section VII: Technical Specifications Component 9 *Will they be sending or posting a bid bulletin that itemizes all the servers that will be migrated into the HCI environment? We'll need this info to determine if our services scope will still apply or if we need to add/revise the scope.*	Please refer to item no. 27 of this Bid Bulletin No. 1.
31	Page 45 Section VII: Technical Specifications Component 9 Section VII. Technical Specifications: Component 9: Server, Licenses, Storage, Services (Hyper Converged Infrastructure) [page 45-53] Item III. Firewall, brand new [Page 55-63] *Can we provide other brand or alternative solution that is equivalent with the project requirements? Upon our inquiry and confirmation with the distributor, said requirements have been locked to a specific brand, thereby limiting other bidders to make use of other brand/solution.*	Yes. We are not brand specific. As long as the offer is equivalent or higher to the minimum requirement.
32	Page 45 Section VII: Technical Specifications Component 9-I, B Item 5 Migration of all existing physical servers to a Hyper Converged environment (PSDBM) *We'd like to ask for the list of existing physical servers to be migrated to the*	Please refer to item no. 27 of this Bid Bulletin No. 1.

	proposed HCI solution for the migration purposes?	
33	Page 46 Section VII: Technical Specifications Component 9-I, Hardware Requirements, 4. Philgeps We'd like to clarify if these list specifications are hardware server specs to be provided each server type or will it be migrated to an HCI solution servers?	Yes it is HCI. As long as the combined multiple server requirement component into one of PhilGEPS covers the minimum requirement such as memory, storage, and CPU shall comply by the Bidder. But do not mix with the physical server of the PS-DBM requirement.
34	Page 46 Section VII: Technical Specifications Component 9 Management: integrated Lights-out (iLo) with Intelligent Provisioning (standard) /Optional: iLO Advance and OneView <u>or equivalent</u>	To include "equivalent" specifications for the said component.
35	Page 53 Section VII: Technical Specifications Component 9 All models support external expansion using SAN Storage or D3X10, D6020,and D8000 Disk Enclosure product families <u>or equivalent</u>. A Fibre Channel, SAS, or iSCSI connection must be added to support MSA SAN Storage (note that high-availability clustering is not supported) while a Smart Array controller with external ports must be added to support external Disk Enclosures	To include "equivalent" specifications for the said component
36	Page 53 Section VII: Technical Specifications Component 9 Archiving Storage System All models support external expansion using SAN Storage or D3X10, D6020, and D8000 Disk Enclosure product families. A Fibre Channel, SAS, or iSCSI connection must be added to support MSA SAN Storage (note that high-availability clustering is not supported) while a Smart Array controller with external ports	To include "equivalent" technical specifications.

	must be added to support external Disk Enclosures *These features pertain to a certain brand and are proprietary to that brand.* *Can we provide a different hardware that can match the needed requirement?*		
37	Page 54 Section VII: Technical Specifications Component 9 Component 9.2. under SD-WAN *Based on current market availability, the specification falls under specific brand and model and already end of life (discontinued product).* *It was also merged to a different company and renamed its model.* *Can we provide similar SD-WAN brand that can comply to the goal of the organization to load-balance and provide multiple ISP connections to the network environment of the organization?*	Yes. Bidders can provide equivalent or higher specifications as long as it complies with the load balancing features and is able to provide multiple ISP connections to the network environment of the organization based on the minimum requirement.	
38	Page 45-52 Section VII: Technical Specifications Component 9 I. Server, Licenses, Storage, Services (Hyper Converged Infrastructure) *Since we are to provide HCI solutions to PS-DBM, do we also intend to migrate the physical servers of PhilGEPS to HCI as well?* *Also, PS-Philgeps' requirement is composed of multiple hardwares, can we offer an HCI solution that can cater the application on those multiple servers?* *SPECIFICATIONS* *Hardware:* *Processor: 2*Intel Xeon Gold 6326 2.9Ghz, 16C/32T, 128G (32G*4 or 64G*2) Memory, 2*240G OS disks (Configured with RAID1),*	Yes it is HCI. As long as the combined multiple server requirement component into one of PhilGEPS covers the minimum requirement such as memory, storage, and CPU shall comply by the Bidder. But do not mix with the physical server of the PS-DBM requirement.	

Disk Slot: 12*3.5in disk slots, 2*240G OS disks
Memory: 16*32GB DDR4 RDIMM
Storage: 8*1.9TB Enterprise Grade SSD 3D NAND TLC SSD 2.5", mixed use, SATA 3.0 6Gbps.
USB 3.0: 4*USB 3.0 slots
NIC: 4*GE+2*10GE
Transceivers: 8*SFP+ 10GE Multimode Optical Transceiver
Accessory: 1*Superdog USB Key for license activation
Redundant Power Supply: 900W
PCIe Slots: 3 PCIe Slots
FEATURES:
*The compute, storage, security and networking resources must be managed and operated centrally.
*Must be able to support hot pluggable disk drives.
*Must have built-in backup to support agentless incremental and scheduled VM-level backup, backup could have periodic full image and archivable to another storage.
*Must support Continuous Data Protection which can record VMs' IOs at an interval as minimum as 5 seconds, data can be restored at any point of time in the past 3 days
*The Continuous Data Protection must be integrated without additional 3rd party software
*VMs can be restored directly from archived files.
*Must have built-in high availability capability to support drive failures or complete node failures. In case a host fails, all the VMs running on that host can be recovered to another clustered host, to ensure business continuity.
*Must be able to increase VM Specs without shutdown when it faces traffic spikes.
*Must be able to design and deploy virtual setup in a modifiable diagram within the HCI Platform.
*When the power grid is down, the platform which is the hypervisor host itself will shut down the VMs elegantly by

		using the electricity from the UPS to protect VMs to minimize the data loss.	
		*Must be able to have a built-in artificial intelligence engine which is able to learn, construct database performance models and auto-optimize them like SQL as needed by the production.	
		*Must be able to automatically migrate some of the VMs on a node when the CPU & Memory usage of the node exceeds a certain threshold to alleviate the workload of this node, the CPU/memory threshold can be set on the management platform	
		*The HCI must have end to end security functionality	
		I. Distributed firewall to offer micro-segmentation for VMs	
		II.Built-in Web Application Firewall for the platform	
		II.Built-in Virtual Next Generation Firewall (Not traditional UTM) with Artificial Intelligence powered Malware Detection Engine, cloud-based threat intelligence and Web Application Firewall function for north-south traffic	
		*The management platform is integrated and distributed, not relying on a certain virtual machine or physical machine, which is more reliable.	
		*No metadata server, storage virtualization and computer virtualization are tightly coupled	
		GENERAL Requirement:	
		*The supplier must provide a solution from a brand that has global presence and has a local office in the Philippines. The brand for the hardware components must have a local depot or warehouse of replacement parts.	
39		Page 46-53 Section VII: Technical Specifications Component 9 I. Server, Licenses, Storage, Services (Hyper Converged Infrastructure) Management:	To include "equivalent" specifications for management.

		integrated Lights-out (iLo) with Intelligent Provisioning (standard or equivalent) /Optional: iLO Advance and OneView

These features pertain to a certain brand and are proprietary to that brand.

Can we provide a different hardware that can match the needed requirement? | |
| **40** | | Page 53
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Component 9

I. Server, Licenses, Storage, Services (Hyper Converged Infrastructure)

Storage with Microsoft Windows Server IoT 2019

-Azure file synchronization, Azure Backup, Shared Block Storage (iSCI Target Server / Storage Provider)

How does PS-Philgeps connect their MS Azure resources to the on-prem storage? What is the protocol used?

Aside from the MS Azure resources, what other resources will be connected to this storage and what protocol will be used?

Does PS-Philgeps require Windows Server IoT 2019 license? | Yes. We require the Windows Server IoT 2019 License. We only use the MS Azure resources particularly on the Storage Account.

In terms of the protocol, we rely on the features available on the provided license that are advantageous for back-up, and security purposes.

Add Windows Server IoT 2019 or "higher" version. |
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Component 9

II. Switches, Brand New

A. Switch

Provides 2.5Tbps for bidirectional switching and 1,920 Mpps for forwarding.

We recommend: to upgrade Switching Capacity to provide 3.2Tbps for bi-directional switching and relax the | This is to clarify that the original requirement is retained. |

	Forwarding rate to 1,000 Mpps for forwarding *Having a high switching capacity to forwarding rate in Network switches offers several benefits:* *-Low Latency* *-High Throughput* *-Improved Scalability* *-Support for Bandwidth-Intensive Applications* *-Redundancy and High Availability - enhance network reliability and availability.* *-Flexibility for Future Growth* *-Reduced Network Congestion*	
42	Page 56 Section VII: Technical Specifications Component 9 **COM ports:** 1 x COM (RJ45) ~~(front)~~	To remove "front" from item I.
43	Page 56 Section VII: Technical Specifications Component 9 ~~**J. HDMI ports:** 1 x HDMI (rear)~~	To remove the requirement for item J.
44	Page 56 Section VII: Technical Specifications Component 9 III. Firewall, Brand New 1. PS-DBM Main Office Firewall Requirements *xxx* J. HDMI ports: 1 x HDMI (rear) *What is the purpose of the HDMI port?* *We suggest this to be removed.*	Please refer to item no. 43 of this Bid Bulletin No. 1.
45	Page 56 Section VII: Technical Specifications Component 9 III. Firewall, Brand New 1. PS-DBM Main Office Firewall Requirements	This is to clarify that the specifications are not brand specific. The prospective bidders can offer equivalent or higher to the requirements.

		F. Ethernet Port: 8 GbE copper (incl. 2 bypass pairs) 2 10 GbE SFP+* *This specification is leading to a single brand only.* *Reference: XGS Model* *https://www.sophos.com/en-us/products/next-gen-firewall/tech-specs* *May we request to consider the following generic specifications:* *F. Ethernet Port: 8 GbE copper, 2x 10 GbE SFP+**	
46		Page 56 Section VII: Technical Specifications Component 9 III. Firewall, Brand New 1. PS-DBM Main Office Firewall Requirements G. LAN Module <u>or SFP</u> slot: 8 *This specification is leading to a single brand only.* *Reference: XGS Model* *https://www.sophos.com/en-us/products/next-gen-firewall/tech-specs* *May we request to consider the following generic specifications:* *G. LAN SFP Slot:8*	This is to include "SFP" as an option for the LAN module.
47		Page 56 Section VII: Technical Specifications Component 9 III. Firewall, Brand New 1. PS-DBM Main Office Firewall Requirements M. Power Consumption: 31W, 107 BTU/hr (idle) *This specification is leading to a single brand only.*	This is to clarify that the specifications are not brand specific. The prospective bidders can offer equivalent or better to the requirements. For this component, lower AC Power Consumption values are better.

	May we request to consider the following generic specifications: *AC Power Consumption (Average) : M. Power Consumption range: 31W - 162 W, 107 - 672 BTU/hr*	
48	Page 56 Section VII: Technical Specifications Component 9 III. Firewall, Brand New 1. PS-DBM Main Office Firewall Requirements N. Power Consumption: 83W, 283 BTU/hr (full load) *This specification is leading to a single brand only.* *Can we consider our proposed specification.* *May we request to consider the following generic specifications:* *AC Power Consumption (Average) : M. Power*	This is to clarify that the specifications are not brand specific. The prospective bidders can offer equivalent or better to the requirements.
49	Page 56 Section VII: Technical Specifications Component 9 III. Firewall, Brand New 1. PS-DBM Main Office Firewall Requirements S. IPS Throughput: 14,700 Mbps/14.7 Gbps *This specification is leading to a single brand only.* *What payload is IPS throughput using?* *May we request to consider the following generic specifications:*	This is to clarify that the original requirement is retained.

		S. IPS Throughput range: 12 - 14.7 Gbps	
50		Page 56 Section VII: Technical Specifications Component 9 III. Firewall, Brand New 1. PS-DBM Main Office Firewall Requirements U. Concurrent Connections: 13,640,000 *This specification is leading to a single brand only.* *May we request to consider the following generic specifications:* *Concurrent Sessions: range 7,800,000 - 13,640,000*	This is to clarify that the original requirement is retained.
51		Page 57 Section VII: Technical Specifications Component 9 III. Firewall, Brand New 1. PS-DBM Main Office Firewall Requirements W. Features: 40. Email Protection Features such as but not limited to: 41. Email Protection and Control 42. Email scanning with SMTP, POP3, and IMAP support 43. Block spam and malware during the SMTP transaction 44. Live Protection real-time, in-the-cloud lookups for the latest threat intelligence 45. Spam quarantine digest and notifications options 46. Malware and spam quarantines with search and filter options by date, sender, recipient, subject, and reason with option to release and delete messages	This is to clarify that the original requirement is retained.

	May we clarify if these solutions are requiring email security? If Yes, kindly accomplish the "Scoping Question for DBM-PhilGeps.xls in Email Security tab" to properly scope the requirement. Otherwise, we would like to request to remove this specification since this is not part of a firewall functionality.		
52	Page 57 Section VII: Technical Specifications Component 9 III. Firewall, Brand New 1. PS-DBM Main Office Firewall Requirements W. Features: 23. Authentication certificates for iOS and Android May we clarify if these solutions require Multi-Factor Authentication? If yes, kindly accomplish "Scoping Question for DBM-PhilGeps.xls in Multi-Factor Authentication tab" to properly scope the requirement. Otherwise, we would like to request to remove this specification since this is not part of a firewall functionality.	This is to clarify that the original requirement is retained.	
53	Page 57 Section VII: Technical Specifications Component 9 III. Firewall, Brand New 1. PS-DBM Main Office Firewall Requirements W. Features: 5. Central management support May we clarify if these solutions require a central management solution? If yes, kindly accomplish "Scoping Question for DBM-PhilGeps.xls in central management	This is to clarify that the original requirement is retained.	

	solution tab" to properly scope the requirement. *Otherwise, we would like to request to remove this specification?*		
54	Page 57 Section VII: Technical Specifications Component 9 III. Firewall, Brand New 1. PS-DBM Main Office Firewall Requirements W. Features: 25. Advanced Threat Protection (Detect and block network traffic attempting to contact command and control servers using multi-layered DNS, AFC, and firewall) *May we clarify if these solutions require sandboxing? If yes, kindly accomplish "Scoping Question for DBM-PhilGeps.xls in sandboxing tab" to properly scope the requirement.*	This is to clarify that the original requirement is retained.	
55	Page 57 Section VII: Technical Specifications Component 9 III. Firewall, Brand New 1. PS-DBM Main Office Firewall Requirements W. Features: 26. Instantly identifies compromised endpoints including the host, user, process, incident count, and time of compromise *May we clarify if these solutions require Endpoint Security? If yes, kindly accomplish "Scoping Question for DBM-PhilGeps.xls in Endpoint Security tab" to properly scope the requirement.*	This is to clarify that the original requirement is retained.	

56	Page 58 Section VII: Technical Specifications Component 9 III. Firewall, Brand New 1. PS-DBM Main Office Firewall Requirements W. Features: 58. Extensive reporting includes a dashboard widget for analyzed files, a detailed list of the files that have been analyzed and the analysis results, and a detailed report outlining the outcome of each machine learning model. *May we clarify if these solutions require a network analytics solution? If yes, Kindly accomplish "Scoping Question for DBM-PhilGeps.xls in network analytics solution" to properly scope the requirement.*	This is to clarify that the original requirement is retained.	
57	Page 58 Section VII: Technical Specifications Component 9 III. Firewall, Brand New 2. PhilGEPS Firewall SD-WAN Requirements SOFTWARE DEFINED WIDE AREA NETWORK(SDWAN) Meantime Between Failures (MTBF): 162,171hours (18.5years) *Based on our research, this specs is leading to one brand.* *Enterprise-grade networking devices often have MTBF ratings that fall within a range of 50,000 to 100,000 hours or equivalent 6 to 11 years.* *We request to consider the following statement:* *Meantime Between Failures (MTBF): minimum of 10 years*	Minimum of 130,000 Hours based on the average of the MTBF defined in the TOR vs to the proposed range of maximum MTBF of 100,000 hours considering we scale down our requirements.	

58	Page 58-59 Section VII: Technical Specifications Component 9 III. Firewall, Brand New 2. PhilGEPS Firewall & SD-WAN Requirements Under Software Define Wide Area Network (SDWAN) All Specifications *This specification is leading to a single brand only.* *May we clarify if this is a separate appliance? Most of the NG-Firewall have built-in SD-WAN functionality* *Reference Link:* *https://www.arubanetworks.com/assets/ds/DS_Spec-Sheet_EdgeConnect-XS.pdf* *May we request to consider the following generic specifications:* *Can we propose NG-Firewall with built-in SD-WAN capabilities?*	Separate or integrated we will allow as long as all features are present to the proposal.
59	Page 59 Section VII: Technical Specifications Component 9 III. Firewall, Brand New 2. PhilGEPS Firewall & SD-WAN Requirements NETWORK GATEWAY SECURITY - NEXT GENERATION FIREWALL Xstream Flow Processor (NPU): Marvell NPU *This specification is leading to a single brand only. We recommend to remove the "Xstream Flow Processor (NPU): Marvell NPU"*	We will stick to the minimum requirements considering that it affects the price once we increase the minimum requirement. All technical specifications were based on minimum, if the bidder proposed higher specification, they were allowed. You may propose the SIC based solution but that will be optional since it is not part of the original proposal.

	We highly recommend to change i5-8400 6C6T 3.Ghz 9MB 65W *Please consider an ASIC-based solution that is optimized for faster and enhanced firewall performance with enhanced cybersecurity features and not dependent on the hardware. Their hardware-level design allows for extremely fast packet processing compared to CPU-based Firewalls that are limited by the OS dependencies on hardware resources.* *Most of the top brands of Firewalls are ASIC-based while other cheaper brands are still using Linux-based technology.*	
60	Page 59 Section VII: Technical Specifications Component 9 III. Firewall, Brand New 2. PhilGEPS Firewall & SD-WAN Requirements NETWORK GATEWAY SECURITY - NEXT GENERATION FIREWALL I/O Ports: 1x COM RJ45, 2x USB 3.0 / 1x USB 2.0 / 1x RJ45 MGMT /, 1x Micro USB (cable included) / w/ 1x expansion bay *This specification is leading to a single brand only.* *Can we consider:* *I/O Ports : 1x COM RJ45, 1x USB 2.0 / 1x RJ45 MGMT*	This is to clarify that the original requirement is retained. 1x USB 2.0 is lower than the proposed USB 3.0.
61	Page 59 Section VII: Technical Specifications Component 9 III. Firewall, Brand New 2. PhilGEPS	This is to clarify that the Multi-function LCD display shall be optional. The GUI/Web Browser to monitor or manage the server

		Firewall & SD-WAN Requirements NETWORK GATEWAY SECURITY - NEXT GENERATION FIREWALL Display: Multi-function LCD display *This specification is leading to a single brand only.* *What is the use case of the LCD module?* *Can we consider removing this specification since we can monitor the appliance via GUI/ Web browser*	is in the "General Management"
62		Page 59 Section VII: Technical Specifications Component 9 III. Firewall, Brand New 2. PhilGEPS Firewall SD-WANRequirements SOFTWARE DEFINED WIDE AREA NETWORK(SDWAN) Power: 100-240VAC / 50-60Hz / 34W / 116 BTU (Single adapter) <u>or equivalent</u> *This specification is leading to a single brand only.* *May we request to consider the following generic specifications:* *Power: 100–240V AC, 50/60Hz range 116 - 730 BTU/h*	To include "equivalent" in the technical specifications.
63		Page 59 Section VII: Technical Specifications Component 9 III. Firewall, Brand New 2. PhilGEPS Firewall SD-WANRequirements SOFTWARE DEFINED WIDE AREA NETWORK(SDWAN) EMC Regulatory: FCC Part 15 Class B, EN 55022 Class B, VCCI	This is to clarify that the original requirement is retained since the regulatory compliance is mandatory. We cannot relax the Regulatory Compliance, there were 2 options in the EMC Regulatory as provided in the ToR.

	Class B EN 61000-3-2/3-3, EN 55024 or FCC Part 15 Class A, RCM, VCCI or equivalent *The proposed certifications are for ruggedized equipment, given our deployment within the Data Center. Can you consider relaxing these certifications?* *May we request to consider the following generic specifications on this Regulatory Compliances: FCC Part 15 Class A, RCM, VCCI, CE, UL/cUL, CB*	
64	Page 60 Section VII: Technical Specifications Component 9 III. Firewall, Brand New 2. PhilGEPS Firewall & SD-WAN Requirements NETWORK GATEWAY SECURITY - NEXT GENERATION FIREWALL GENERAL MANAGEMENT: -Support for cloud formation templates -Supports a broad range of virtualization platforms and can also be deployed as a software appliance -on your own x86 Intel hardware -Certified and optimized for Azure and is available in the Microsoft Azure Marketplace. Can take a free test drive or the flexible PAYG or BYOL licensing options. -Stronger password hash algorithm (requires a password change) *What solution/s do you refer to the mentioned specifications?* *Can we consider removing this specification since it isn't relevant to the solutions.*	The PhilGEPS application is hosted in the Cloud Computing Platform particularly in Azure. The PhilGEPS were planning to implement real time sync of data storage from cloud to on-prem.

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III. Firewall, Brand New
2. PhilGEPS

Firewall &
SD-WAN Requirements

NETWORK GATEWAY SECURITY - NEXT GENERATION FIREWALL

Firewall, Networking and Routing:

-Wireless WAN support (n/a in virtual deployments)

-Support for multiple WAN link options including VDSL, DSL, cable, and 3G/4G/LTE cellular with

This specification is leading to a single brand only.

Can we clarify, what is the purpose of virtual deployments?

This feature is only available in lower models of firewalls and not ideal for Data Center deployments.

We recommend the following statement:

Support for multiple WAN link | This is to clarify that the original requirement is retained. The bidder can offer equivalent or higher specifications. |
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III. Firewall, Brand New
2. PhilGEPS

Firewall &
SD-WAN Requirements

NETWORK GATEWAY SECURITY - NEXT GENERATION FIREWALL | This is to clarify that the original requirement is retained. The bidder can offer equivalent or higher specifications (based on industry-standard). |

	Integration with Azure Virtual WAN for a complete SD-WAN overlay network *This feature is only available in lower model of firewalls and not ideal for Data Center deployments* *Provides compatibility with industry-standard SD-WAN platforms specifically tailored for data center deployments*	
67	Page 65 Section VII: Technical Specifications Scope of Work Bidders shall be allowed to visit the actual site for the preparation of the plans prior to the submission of their proposal. Bidders shall submit an architectural and electrical layout/design based on user requirements together with their Technical Bid Proposal. *Will this be submitted during the submission of the proposals?*	To clarify that the architectural and electrical layout/design shall be submitted as part of the inception report.
68	Page 65 Section VII: Technical Specifications Scope of Work Bidders shall be allowed to visit the actual site for the preparation of the plans prior to the submission of their proposal. Bidders shall submit an architectural and electrical layout/design based on user requirements together with their Technical Bid Proposal. *Clarification:* *• May the PS-DBM IBAC and TWG consider the submission of architectural and* *electrical layout/design a day after the bid has been awarded?*	To clarify that the architectural and electrical layout/design shall be submitted as part of the inception report.
69	Page 65 Section VII: Technical Specifications Scope of Work	To clarify that the architectural and electrical layout/design shall be submitted as part of the inception report.

	"Bidders shall be allowed to visit the actual site for the preparation of the plans prior to the submission of their proposal. Bidders shall submit an architectural and electrical layout/design based on user requirements together with their Technical Bid Proposal." *Is this a design and build project? Kindly consider the submission of architectural and electrical.*	
70	Page 65 Section VII: Technical Specifications Scope of Work Bidders shall be allowed to visit the actual site for the preparation of the plans prior to the submission of their proposal. Bidders shall submit an architectural and electrical layout/design based on user requirements. ~~together with their Technical Bid Proposal~~	To clarify that the architectural and electrical layout/design shall be submitted as part of the inception report.
71	Page 69 Section VII: Technical Specifications Bidder's Eligibility Requirement Under *Bidder's Eligibility, E.1 "The contractor must have at least one (1) employed electronics/electrical engineer fully certified by the vendor on the similar UPS product being offered with a minimum two (2) years' experience in the UPS-Electrical System installation, configuration and troubleshooting. Certified Engineers should have completed the training course for the equivalent or similar UPS Certification Program from the Manufacturer. Copy of the Certification shall be provided. Certified engineers must be employed by the bidder for at least three (3) years."* We'd like to clarify if the employed personnel to the bidder for the UPS System is certified by the brand offered and should completed a five (5) day training course and must have passed the certification exam to ensure expertise on the highly critical UPS offering.	This is to clarify that the original requirement is retained.

72	Page 70 Section VII: Technical Specifications Bidder's Eligibility Requirement "Bidder must be Certified Sales Partner/Reseller of the product offered to ensure its technical expertise on the offered solution." *We'd like to clarify if the required Certification under this section shall be limited to Data Center Critical Infrastructure component of the bid inclusions namely, UPS, PACU, PDU, EMS, and DCIM since these are considered high risk components and since this project is composed of several and different equipment, accessories, and services which will be very extensive and tedious if we will provide all the certifications of all products offered.*	This is to clarify that the original requirement is retained.
72	Page 70 Section VII: Technical Specifications Bidder's Eligibility Requirements "Bidder must have at least one (1) certified Data Center Professional and has been employed by the bidder for at least three (3) years." *Kindly also consider a Certified Data Center Specialist (CDCS). The CDCS will assure that the contractor has the capability and competency and can attest to the data center's availability and manageability. These will cover key aspects that include power, cooling, security, cabling, safety, and other relevant issues to enable smooth data center operation and maintenance.*	This is to clarify that the original requirement is retained.
73	Page 71 Section VII: Technical Specifications Payment Milestones Inception Report/Project Plan within Forty Five (45) Calendar Days upon receipt of Notice to Proceed (NTP)	To clarify that the Inception Report/Project Plan should be approved by the end-user on or before Forty Five (45) Calendar Days upon receipt of Notice to Proceed (NTP).
74	Structured Cabling	Multimode, 10G

	May we ask the existing core switch or termination point of the backbone going to the new data center? *What is the required transceiver:* *- Single Mode or Multimode* *- 1G or 10G*	
75	*If suppliers can offer a high convergence structure that can accommodate all of the seven (7) applications instead of the physical server which Mr. James Angub confirmed.*	Yes it is HCI. As long as the combined multiple server requirement component into one of PhilGEPS covers the minimum requirement such as memory, storage, and CPU shall comply by the Bidder. But do not mix with the physical server of the PS-DBM requirement.
76	*If the architectural and electrical layout / design will form part of the submission of bids?*	To clarify that the architectural and electrical layout/design shall be submitted as part of the inception report.
77	*What is the speed requirement of the switch?*	Please refer to item no. 74 of this Bid Bulletin No. 1.
78	*Are bidders allowed to select specific scopes for the PB No. 026-2023: Supply, Delivery, Installation, Configuration, Commissioning, and Testing of Data Center for the Procurement Service - Department of Budget and Management (PS-DBM) like UPS and Batteries?*	No.
79	*We would like to confirm if all prospective bidder are required to conduct ocular? Based on our experience especially on Data Center client required ocular to make sure that all vendor can complied and have proper information on the area that equipment will be installed especially these are critical equipment.*	No.
80	Can we provide similar SD-WAN that can comply to the goal of the organization to load-balance and provide multiple ISP connections to the network environment of the organization?	Yes. The bidders can offer equivalent of higher to the technical
81	*Based on the actual site Survey, GSD cannot confirm where is the specific tapping point for the Power requirement of*	This is to confirm that the Tapping point will be coming

	the proposed New Data Center, this will affect the preparation of costing for the feeders and locations Protective Devices and ECB's. Kindly confirm if the Tapping point will be coming from the MDP at Genset/Powerhouse Room.	from the MDP at Genset / Powerhouse Room.

By rules all other portions of the Bidding Documents correspondingly affected by these amendments are likewise deemed amended to conform to this Bid Bulletin.

Amendments / inclusions made herein shall be considered an integral part of Bidding Documents.

The changes made in the Philippine Bidding Documents (6th Edition, July 2020) are deemed integrated in the terms and conditions for this project.

Signature Redacted

ENGR. JAIME M. NAVARRETE, JR.
Chairperson, Internal Bids and Awards Committee

For the purpose of this Bulletin and for better understanding of its contents, the following rules shall apply: (a) Double Strike out – denotes deletion; (b) Underline – denotes inclusion or new item/requirement; and "xxx" – denotes separation of phrase/s being amended from the rest of the main text.