



13 December 2018

**SUPPLEMENTAL / BID BULLETIN**

**Addendum No. 2019-013-02**

**Subject: “Supply, Delivery, Installation, Integration, Testing and Commissioning of PAGASA Meteorological Information System (PAGASA-MIS) Storage Expansion” (Reference: PR No. 2018-10-1920 / IB 2019-013; ABC Php 102,699,805.00)**

This Bid Bulletin is being issued to all prospective bidders to clarify, amend and/or modify certain provisions in the Terms of Reference (TOR) and to answer the written clarificatory questions submitted by prospective bidders, to wit:

**A. Queries from ACCENT MICRO TECHNOLOGIES, INC.**

QUESTIONS	PAGASA-BAC ANSWERS
<p>1. Under Technical Requirements that the “Prospective bidder must submit certificate of partnership with the application system developers of PAGASA-MIS in conjunction to the existing support and warranty until December, 2020”.</p> <p>- May we know who is the existing application system developer of PAGASA-MIS</p>	<p>The existing application system developer for PAGASA-MIS is MicroStep-MIS</p>
<p>2. Under Technical Requirements that “The on-premises storage expansion must be of compatible with the current storage head controller of the storage system”.</p> <p>- May we know what is the brand and model of existing storage system.</p>	<p>The brand and models are Oracle ZFS 7320 for the Primary Site and Oracle ZFS ZS3 for the DR Site.</p>
<p>3. Under Technical Requirements that “The cloud storage service must be of the same provider as PAGASA’s existing cloud infrastructure contract”.</p> <p>- May we know the existing provider of cloud infrastructure.</p>	<p>The existing cloud infrastructure with a contract is Amazon Web Service (AWS)</p>
<p>4. Under Technical Requirements that “Must be compatible with PAGASA’s existing hardware infrastructure”.</p> <p>- May we know what is the brand and model of existing hardware infrastructure.</p>	<p>The existing hardware infrastructure for is Oracle</p>
<p>5. In reference to the bidding of “Supply, Delivery, Installation, Integration, Testing and Commissioning of PAGASA Meteorological Information System (PAGASA-MIS) Storage Expansion P.R. No: 018-10-1920 /Reference No.: IB2019-013”, ACCENT MICRO TECHNOLOGIES INC. would like to request for an additional Two (2)</p>	<p>Kindly refer to SBB No. 2019-013-01 posted at the PAGASA website and PhilGEPS.</p>

weeks extension of bid submission due to complexity and scope of project as stated in the TOR. We are also looking for a possibility of JV that will comply with eligibility requirements of this bid.	
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**B. Queries from FRITS & MACZIOL ASIA**

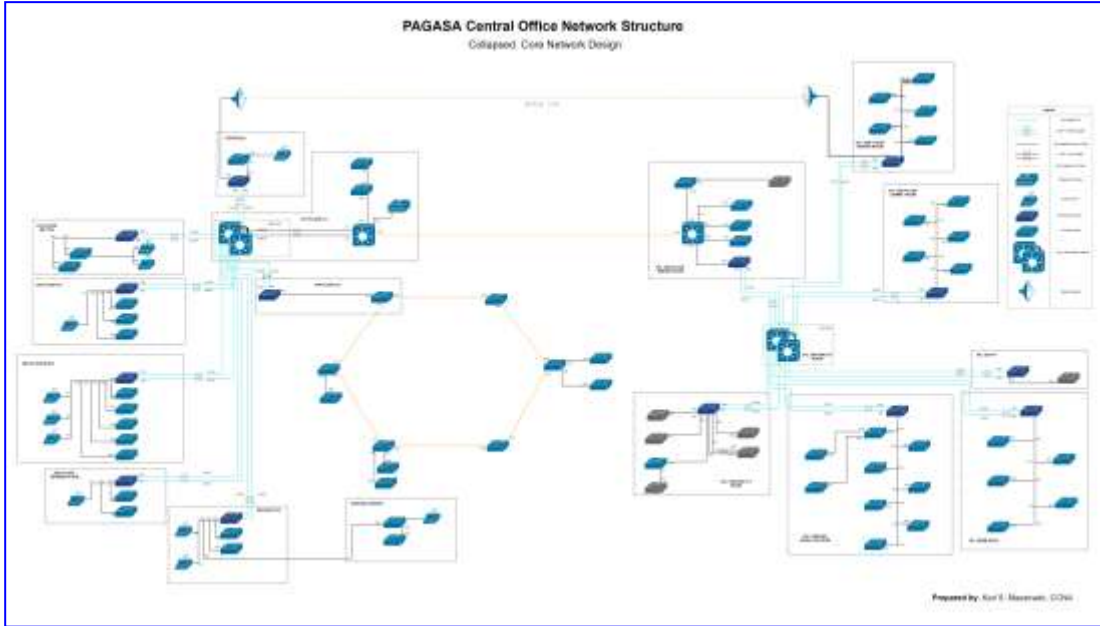
QUESTION	PAGASA-BAC ANSWER
1. What is the definition of the single largest completed contract?	
2. What is the Existing Storage Head Controller brand and model?	Oracle ZFS 7320 for the Primary Site and Oracle ZFS ZS3 for the DR Site.
3. What is PAGASA's Existing cloud infrastructure contract?	The existing cloud infrastructure with a contract is Amazon Web Service (AWS)
4. Provide renewal of database licenses for PAGASA -MIS for 3 years - What is the existing database brand and version? - May we know what is the brand and model of existing hardware infrastructure.	Below are the list of the existing database brand and versions:  Oracle Database Enterprise Edition - Processor Perpetual – Quantity 8 Oracle Tuning Pack - Processor Perpetual – Quantity 8 Oracle Diagnostics Pack - Processor Perpetual – Quantity 8 Oracle Real Application Clusters - Processor Perpetual – Quantity 8  Expiry date was March 27, 2018.
5. Must be compatible with PAGASA's existing hardware infrastructure - what is the existing hardware infra?	The existing hardware infra is Oracle
6. Agency Personnel should be provided with training to operate all proposed hardware and software. They should also be able to perform first (1st) level trouble shooting and problem identification with documented guide books and references. – Meaning, a resident engineer?	Agency Personnel refers to PAGASA Personnel. Please refer to Training and Testing requirements under Scope of Work section.

**C. Queries from LIBERA CONSULTING SOLUTION, INC.**

QUESTIONS	PAGASA-BAC ANSWERS
1. Does the existing Storage Hardware has enough software license to add 200TB? And software license to add 600TB?	Licenses for the 200TB is not applicable since the existing storage head is oracle. And 600TB a cloud base storage.
2. a. Is the existing DR Storage Hardware also in Cebu? b. Does the existing DR Site have space and power to insert one (1) rack?	A. Yes, it is in cebu B. No. Bidder should Provide hosting services for PAGASA's disaster recovery site for at least two (2) years.
3. What is the DR Site configuration for Storage Expansion? Active or COLD site?	PAGASA-MIS has a Cold DR site.
4. What is the existing PAGASA-MIS Database license maintenance coverage and expiry date?	Please see below existing PAGASA-MIS database licenses and expiry date:  Oracle Database Enterprise Edition - Processor Perpetual – Quantity 8 Oracle Tuning Pack - Processor Perpetual – Quantity 8 Oracle Diagnostics Pack - Processor Perpetual – Quantity 8 Oracle Real Application Clusters - Processor Perpetual –

	<p>Quantity 8</p> <p><b>Expiry dates was March 27, 2018.</b></p>
<p>5. Are the three (3) rack mount servers expected to connect to PAGASA's existing virtual infrastructure? If so, are there any existing spare SAN Fabric ports? Are there any existing spare Network LAN ports?</p>	<p>Yes, it's expected to connect, but no spare SAN fabric ports exist and no Network LAN ports. The winning bidder should provide.</p>
<p>6. Are the three (3) rack mount servers only Primary Site? If DR Site is required, is there any spare compute resource that can be optimized?</p>	<p>Two (2) rack mount servers will be for the Primary Site and one (1) rack mount server for the DR Site.</p> <p>There are no spare compute resources that can be utilized.</p>
<p>7. "Provide for a minimum of 600TB additional on-demand cloud storage service that can be used either for block or file storage via storage cloud gateways at any given time within the duration of the warranty." For the Storage on-demand requirements, are there any specific information on the bandwidth of the circuit that interconnect via cloud?</p>	<p>The bandwidth required is at least 100Mbps.</p>
<p>8. The cloud storage service must be of the same provider as PAGASA's existing cloud infrastructure contract. May we request for the details of the same provider of the Storage cloud?</p>	<p>PAGASA's existing cloud infrastructure provider is Amazon Web Services (AWS).</p>
<p>9. Provide for high-throughput, highly available storage network system between Please provide the throughput capacity for this requirement compute nodes and storage system.</p>	<p>Please see Network Specifications under Infrastructure section. (Section II, Item 4)</p>
<p>10. Provide for highly available virtualized on-premises compute environment for PAGASA's API programs and performance sensitive processing. May we request for the API ecosystem which includes the number of API calls per day per application</p>	<p>Proposed solution should cater for PAGASA-MIS projected peak 100 TPS API calls.</p>
<p>11. Provide 3G/LTE connectivity for select on-premises virtual machines. Please confirm if this is a technology feature or an internet service.</p>	<p>This is a technology feature.</p>
<p>12. Provide automatic file indexing and "search" function for select application documents located whether on premises or in PAGASA's cloud infrastructure. Please confirm if this is</p>	<p>Feature can be out-of-the-box or custom developed.</p>

out-of-the-box functionality or custom development?	
13. Provide search functions that can be invoked by other programs via REST API calls. Please confirm if this is out-of-the-box functionality or custom development?	Feature can be out-of-the-box or custom developed.
14. Provide a graphical interface for search functionality. Please confirm if this is out-of-the-box functionality or custom development?	Feature can be out-of-the-box or custom developed.
15. Provide for a hybrid cloud architecture with reliable and secure network connectivity between PAGASA on premises data centers (primary and disaster recovery sites) and PAGASA's existing cloud infrastructure. Request for the current Network WAN infrastructure to understand the technical feasibility whether via VPN, MPLS, SD-WAN or Direct fiber lease line. What is the existing Cloud Platform and its purpose?	<p>Network infrastructure information will be provided.</p> <p>Existing cloud platform is Amazon Web Services, currently hosting PAGASA's website. The purpose of the cloud infrastructure is to cater for public facing websites that have highly variable user loads (i.e during typhoons, or other events affecting web access).</p>



16. Must be compatible with PAGASA's existing hardware infrastructure. Please provide specification of the hardware to understand its technical interoperability. What is the current number of Cloud Server instances?	PAGASA-MIS hardware infrastructure Oracle ZFS 7320 for the Primary Site and Oracle ZFS ZS3 for the DR Site. In regards to the cloud servers utilized by PAGASA website, it has four (4) S3 and ten (10) EC2 instances during incremental weather
17. Cloud services must be of the same provider as PAGASA's existing cloud infrastructure contract. What are the rationale for choosing the same vendor? Are these more investment related or feature related? If feature, please identify which features are important.	The rationale for choosing the same vendor is more on the investment related side.
18. Provide for at least three (3) years of service and support maintenance. Define scope of 3 years of service and support maintenance.	Standard three (3) year, 24x7 service and support maintenance coverage for Vendor-provided Infrastructure.
19. Must provide six (6) Ethernet cards with dual 10gbe ports for the existing controllers. Ethernet cards must be certified and supported by the existing storage controllers. Please provide details of the existing storage controller	The storage head controllers are Oracle ZFS 7320 for the Primary Site and Oracle ZFS ZS3 for the DR Site.

20. Designed for 99.99999999% durability, Can we consider other option than AWS?	It should comply with the PAGASA's existing cloud infrastructure contract.
21. Supports NX-OS. Can we consider a different solution than Cisco?	It should comply with the required specification
22. Provide for a "plug-in" to integrate with PAGASA's existing cloud infrastructure. Request for more details on PAGASA's existing cloud infrastructure	PAGASA's existing cloud infrastructure is presently utilized and optimized for the PAGASA website. Configuration for storage integration will be provided by the winning bidder.
23. Provide for a cloud-based, open-source search and analytics engine. Do you require MAF for open-source solution? Are there any equivalent document that can comply with this given it is an open source solution.	For requirements, please see Enterprise Search Specifications under Software (Section III, Item 3)
24. License renewal of existing PAGASA-MIS database for at least 3 years. Can you provide the version and CSI number for this database?	<p>Provided are the product/version, unit count, expiry of previous contract. Please see below:</p> <p>Oracle Database Enterprise Edition - Processor Perpetual – Quantity 8  Oracle Tuning Pack - Processor Perpetual – Quantity 8  Oracle Diagnostics Pack - Processor Perpetual – Quantity 8  Oracle Real Application Clusters - Processor Perpetual – Quantity 8</p> <p>Expiry date was March 27, 2018.</p>

This shall form an integral part of the Bid Documents.

Please be guided accordingly.

**Sgd.**  
**ENGR. CATALINO L. DAVIS**  
*Chairperson, PAGASA-BAC*