



LANDBANK

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SUPPLEMENTAL/BID BULLETIN NO. 2
For LBP-HOBAC-ITB-GS-20230404-02

PROJECT : **Supply, Delivery, Installation and Configuration of
LANDBANK's Mainframe Storage in the Head Office and
Disaster Recovery Site**

IMPLEMENTOR : **HOBAC Secretariat Unit**

DATE : **May 26, 2023**

This Supplemental/Bid Bulletin is issued to modify, amend and/or clarify certain items in the Bid Documents. This shall form an integral part of the Bid Documents.

Modifications, amendments and/or clarifications:

- 1) The bidder/s are encouraged to use the Bid Securing Declaration as Bid Security.
- 2) The Terms of Reference (Annexes D-1 to D-11), Technical Specifications (Section VII) and Checklist of Bidding Documents (Item No. 12 of Technical Documents and Item Nos. 1, 4, 5 & 6 of Other Documents to Support Compliance with Technical Specifications) have been revised. Please see attached revised Annexes D-1 to D-11, and specific sections of the Bidding Documents.
- 3) The submission and opening of bids is re-scheduled on **June 2, 2023** at 10:00 A.M. through videoconferencing using Microsoft (MS) Teams.
- 4) Responses to bidder's queries/clarifications per Annexes H-1 to H-4.


ATTY. HONORIO T. DIAZ, JR.
Head, HOBAC Secretariat Unit

Technical Specifications

Specifications	Statement of Compliance
<p>Supply, Delivery, Installation and Configuration of LANDBANK'S Mainframe Storage in the Head Office and Disaster Recovery Site</p> <ol style="list-style-type: none">1. Minimum technical specifications and other requirements per attached Revised Terms of Reference (Annexes D-1 to D-11).2. The documentary requirements indicated in the Revised Terms of Reference (Annexes D-7 and D-9) shall be submitted in support of the compliance of the Bid to the technical specifications and other requirements. <p>Non-submission of the above documents may result in the post-disqualification of the bidder.</p>	<p>Bidders must state below either "Comply" or "Not Comply" against each of the individual parameters of each Specification preferably stating the corresponding performance parameter of the product offered.</p> <p>Statements of "Comply" or "Not Comply" must be supported by evidence in a Bidders Bid and cross-referenced to that evidence. Evidence shall be in the form of manufacturer's un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidders statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the applicable laws and issuances.</p> <p>Please state here either "Comply" or "Not Comply"</p>

Conforme:

Name of Bidder

Signature over Printed Name of
Authorized Representative

Position

Checklist of Bidding Documents for Procurement of Goods and Services

The documents for each component should be arranged as per this Checklist. Kindly provide guides or dividers with appropriate labels.

Eligibility and Technical Components (PDF File)

- ***The Eligibility and Technical Component shall contain documents sequentially arranged as follows:***

- **Eligibility Documents – Class “A”**

Legal Eligibility Documents

1. Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages);

Technical Eligibility Documents

2. Duly notarized Secretary's Certificate attesting that the signatory is the duly authorized representative of the prospective bidder, and granted full power and authority to do, execute and perform any and all acts necessary and/or to represent the prospective bidder in the bidding, if the prospective bidder is a corporation, partnership, cooperative, or joint venture or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder. (sample form - Form No. 7).
3. Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid, within the last five (5) years from the date of submission and receipt of bids. The statement shall include all information required in the sample form (Form No. 3).
4. Statement of the prospective bidder identifying its Single Largest Completed Contract (SLCC) similar to the contract to be bid within the relevant period as provided in the Bidding Documents. The statement shall include all information required in the sample form (Form No. 4).

Financial Eligibility Documents

5. The prospective bidder's audited financial statements, showing, among others, the prospective bidder's total and current assets and liabilities, stamped "received" by the BIR or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission.

6. The prospective bidder's computation for its Net Financial Contracting Capacity (NFCC) following the sample form (Form No. 5), or in the case of Procurement of Goods, a committed Line of Credit from a Universal or Commercial Bank in lieu of its NFCC computation.
- **Eligibility Documents – Class “B”**
7. Duly signed valid joint venture agreement (JVA), in case the joint venture is already in existence. In the absence of a JVA, duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful shall be included in the bid. Failure to enter into a joint venture in the event of a contract award shall be ground for the forfeiture of the bid security. Each partner of the joint venture shall submit its legal eligibility documents. The submission of technical and financial eligibility documents by any of the joint venture partners constitutes compliance, provided, that the partner responsible to submit the NFCC shall likewise submit the statement of all its ongoing contracts and Audited Financial Statements.
 8. For foreign bidders claiming by reason of their country's extension of reciprocal rights to Filipinos, Certification from the relevant government office of their country stating that Filipinos are allowed to participate in government procurement activities for the same item or product.
- **Technical Documents**
9. Certification from the DTI if the Bidder claims preference as a Domestic Bidder.
 10. Bid Security (if in the form of a Surety Bond, submit also a certification issued by the Insurance Commission).
 11. Section VI – Schedule of Requirements with signature of bidder's authorized representative.
 12. Section VII – Revised Specifications with response on compliance and signature of bidder's authorized representative.
 13. Duly notarized Omnibus Sworn Statement (OSS) (sample form - Form No.6).

Note: During the opening of the first bid envelopes (Eligibility and Technical Component), only the above documents will be checked by the BAC if they are all present using a non-discretionary “pass/fail” criterion to determine each bidder's compliance with the documents required to be submitted for eligibility and the technical requirements.

- **Other Documents to Support Compliance with Technical Specifications [must be submitted inside the first bid envelope (Eligibility and Technical Component)]**
 1. **Duly filled-out Revised Terms of Reference signed in all pages by the authorized representative/s of the bidder.**
 2. **Certificate of Inspection issued by LANDBANK Data Center Management Department.**
 3. **Manufacturer's authorization (sample form - Form No. 9) confirming that the bidder is authorized to provide the brand being offered and consumables supplied by the manufacturer, including any warranty obligations and after sales support as may be required.**
 4. **List of at least three (3) completed mainframe storage projects in the Philippines for the last five (5) years including company name, project name, contact numbers and email addresses with copies of Purchase Orders or Contracts.**
 5. **Manufacturer's Certificate of Product Technology Roadmap.**
 6. **Curriculum vitae of at least five (5) onsite support personnel.**
- **Post-Qualification Documents/Requirements – [The bidder may submit the following documents/requirements within five (5) calendar days after receipt of Notice of Post-Qualification]:**
 1. **Business Tax Returns per Revenue Regulations 3-2005 (BIR No.2550 Q) VAT or Percentage Tax Returns for the last two (2) quarters filed manually or through EFPS.**
 2. **Latest Income Tax Return filed manually or through EFPS.**
 3. **Original copy of Bid Security (if in the form of a Surety Bond, submit also a certification issued by the Insurance Commission).**
 4. **Original copy of duly notarized Omnibus Sworn Statement (OSS) (sample form - Form No.6).**
 5. **Duly notarized Secretary's Certificate designating the authorized signatory in the Contract Agreement if the same is other than the bidder's authorized signatory in the bidding (sample form – Form No. 7).**

Financial Component (PDF File)

- ***The Financial Component shall contain documents sequentially arranged as follows:***
 1. Duly filled out Bid Form signed by the Bidder's authorized representative (sample form - Form No.1).
 2. Duly filled out Schedule of Prices signed by the Bidder's authorized representative (sample form - Form No.2).
 3. Duly filled-out Bill of Quantities Forms signed by the Bidder's authorized representative (Annex E).

Note: The forms attached to the Bidding Documents may be reproduced or reformatted provided the information required in the original forms and other requirements like signatures, if applicable, are complied with in the submittal.

SUPPLY, DELIVERY, INSTALLATION AND CONFIGURATION OF LANDBANK'S MAINFRAME STORAGE IN THE HEAD OFFICE AND DISASTER RECOVERY SITE

Instructions on responding to this Terms Of Reference (TOR) Document

- a. The vendor/bidder understands and agrees that the requirements specified in this document are deliverables for the proposed tech refresh of Landbank's existing Mainframe Storage in the Head Office and the Disaster Recovery Site.
- b. All deliverables, its specifications and functionalities, must be satisfied including its necessary prerequisites without additional cost to the Bank.
- c. The vendor/bidder must answer at the third column whether the [solution requirement] complies or not—answer must be **YES** or **NO**.
- d. The REMARKS column in the table is to be filled out according to the response in the third column:
 - d.1. If answer to the third column is YES: REMARKS column is to be filled out with the complete and specific reference to the supporting document included in the bidding document to support answer/claim.
 - d.2. If the answer to the third column is NO: REMARKS column is to be filled out with the justifications why the proposed storage system cannot meet the specified requirement; include the complete and specific reference to the supporting document included in the bidding document to support answer/claim.
- e. The supporting documents, cited references to the Storage TOR must be indexed or labeled accordingly for easy identification and validation.

1. CAPACITY			
1.1. Usable Capacity Requirement	1.1.a. The Storage should have minimum of 53TIB Redundant Array of Independent Disks 6 (RAID6) usable capacity for the following sites: <ul style="list-style-type: none"> • Production Site • Disaster Recovery (DR) Site With 120 mandays for remote/onsite support services.		
	1.1.b. The Storage should support IBM z/VSE 6.2 and IBM z/OS Operating System		

2. TECHNICAL FEATURES			
2.1. Storage Architecture	2.1.a. The storage should support 40U height on a full-rack deployment		
	2.1.b. The storage should support broad range of server environments, including IBM Power, IBM Z, servers from HPE and Oracle, AMD-based, and Intel-based x64 servers		
	2.1.c. The storage should support Power9 processor-based systems or similar technology/functionality with 8 billion transistor		
	2.1.d. The storage should support 8-core processor per processor complex		
	2.1.e. The storage should support 512GB system memory		
	2.1.f. The storage should support pair of High-Performance Flash Enclosure Gen-2 storage enclosures		
	2.1.g. The storage should support all-flash deployment that is equipped with encryption-capable flash drives		
	2.1.h. The storage should support different tiers of flash drives. (ie: performance-optimized, capacity-optimized)		
	2.1.i. The storage should support the ability to scale usable capacity by adding additional flash drives on the Based Frame		
	2.1.j. The storage should support over-provisioning capabilities that provide more efficient usage of the storage capacity.		
	2.1.k. The storage should support up to 192 Flash Drives		
	2.1.l. The storage should support arrays to be configured as RAID6, RAID10, or RAID5		
	2.1.m. The storage should support I/O Enclosure to provide connectivity between the adapters and the processor complex		
	2.1.n. The storage should support 32 Gbps host adapters with authentication and line-rate encryption or similar technology/functionality.		
	2.1.o. The storage should support redundant power supplies and cooling.		
	2.1.p. The storage should support Earthquake Resistance Kit - seismic kit for stabilizing the storage system frame.		
	2.1.q. The Storage should support Gross Weight of 835Kgs		
2.1.r. The Storage should support the			

	following power requirements AC Type; 200-240Volts; Single Phase; 4600 Watts; N+1 Redundancy; Twist-lock; 2 outlet		
2.2. Performance, Availability, Security Features	2.2.a The storage should support up to a 4.3 TB cache		
	2.2.b. The storage should support Sequential Prefetching in Adaptive Replacement Cache - self-learning cache algorithm which optimizes cache efficiency and enhances cache hit ratios		
	2.2.c. The storage should support Adaptive Multi-stream Prefetching that improves performance for common sequential and batch processing workloads		
	2.2.d. The storage should support Intelligent Write Caching for better write-cache management and destaging the order of writes		
	2.2.e. The storage should support automatic performance monitoring algorithms to ensure that frequently accessed data is put on faster storage		
	2.2.f. The storage should support zHPF (High Performance FICON for IBM Z) to enables multiple channel commands to be sent to the control unit as a single entity.		
	2.2.g. The storage should support IBM zHyperlink		
	2.2.h. The storage should support 99.99999 ("seven nines") availability and no-data-loss automatic failover within metropolitan distances		
	2.2.i. The storage should support function that is designed to reduce the possibility of secondary failures and data loss in RAID arrays		
	2.2.j. The storage should support Dynamic Volume Expansion by enabling easier, online volume expansion (for Open Systems and IBM Z) to support application data growth		
	2.2.k. The storage should support fast replication technique to provide a point in time copy of the data in a few seconds or even less.		
2.2.l. The storage should support remote mirroring options such as Synchronous, Asynchronous and Three-site options by combining Synchronous and Asynchronous.			

	<p>2.2.m. The storage should support to directly move data to tape without data going through the host or similar technology/functionality, which can sharply reduce IBM Z MIPS usage during the backup periods.</p>		
	<p>2.2.n. The storage should support to deliver the ability to create and retain hundreds of point in time copies to protect against logical data corruption or malicious destruction or ransomware</p>		
	<p>2.2.o. The storage should support to prevent deleting active volumes that are still in use</p>		
	<p>2.2.p. The storage should support Full Disk Encryption (FDE) capable drives to secure all logical volume data at rest</p>		
	<p>2.2.q. The storage should enable compliance with US National Institute of Standards and Technology (NIST) SP-800-131a.</p>		
	<p>2.2.r. The storage should be certified as meeting the requirements of the IPv6 Ready Logo program.</p>		
	<p>2.2.s. The storage should support IBM Fibre Channel Endpoint Security when they are connected to an IBM z15/z16 Mainframe.</p>		
	<p>2.2.t. The proposed storage must be able to provide hot spares for the offered number of disk drives</p>		
	<p>2.2.u. The storage should support concurrent code or firmware upgrades</p>		
2.3. Management	<p>2.3.a. The storage should support GUI (graphical user interface) and CLI (command line interface) to configure the system or query status information.</p>		
	<p>2.3.b. The storage should have a hardware management console (HMC) and server for the HMC.</p>		
	<p>2.3.c. The storage management must provide a comprehensive, end-to-end data and storage management solution that monitors and analyzes multi-vendor storage environments</p>		
	<p>2.3.d. The storage management must provide a single point of control that helps administrators manage every aspect of the storage infrastructure—between the hosts, through the fabric, and down to the physical drives—across multi-site storage</p>		

	environments		
	2.3.e. The storage management must help consolidate management of file, object, block, server-based and software-defined storage		
	2.3.f. The storage management must help Storage Administrator for everyday task leveraging a consistent dashboard for managing the broader storage environment		
	2.3.g. The storage management must help Administrators set performance thresholds for devices based on selected performance metrics, generating alerts when those thresholds are exceeded		
2.4. Support and Maintenance	2.4.a. Proposed storage must include three (3) year warranty on all parts, components, peripherals and both Hardware (parts and labor) and Software included in the bid.		
	2.4.b. Must include 24/7 local and remote technical and help desk support for three (3) years.		
	2.4.c. Remote technical and help desk support to be provided to Landbank must include desktop sharing capability for speedy troubleshooting and problem resolution		
	2.4.d. Must include onsite support for severity one (1) issues within two (2) hours. LBP SLA on incident and problem management will be observed.		
	2.4.e. Support must always be available and accessible on demand as part of the support and maintenance agreement.		
	2.4.f. The support and delivery services specified are exclusive for this storage model/product and must not be related to other storage models/products that are not part of the terms of reference or the contract unless otherwise specified.		
	2.4.g. Must include quarterly preventive maintenance and health check for three (3) years		
	2.4.h. The winning vendor must provide 120 man-days of support services but not limited to the following: <ul style="list-style-type: none"> • storage migration • preventive maintenance (ad hoc) • inventory management support 		

	<ul style="list-style-type: none"> • hardware installation and reconfiguration services • standby and scheduled services • system performance and health check • others technical support services <p>Unused man-days must be convertible to other credits (i.e. trainings, knowledge transfer, etc)</p>		
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3. SCOPE OF SERVICE			
3.1. Scope of service	3.1.a. Proposed storage system should include services such as delivery to site, setup, installation and configuration of all storage hardware and software components for both Production and DR site		
	3.1.b. Services must include implementation of the storage technology functionalities specified in this document and features that are inherent to the storage system.		
	3.1.c. Services should include Data Migration Services and software/hardware needed for the seamless migration.		
	3.1.d. Services should include data cables and laying out of the data cables		
	3.1.e. Services should include electrical cables, twistlocks and electrical breakers needed and laying out of the electrical cables.		
	3.1.f. Services should include small form-factor pluggable (SFP) needed if storage will connect to 10gb network.		
	3.1.g. Services should include decommission and transfer of old storage to LBP warehouse in Antipolo.		

4. TRAININGS			
4.1. Training/workshop/skills transfer/tech updates/industry best practices	4.1.a. Vendor must provide a three (3) day onsite training/knowledge transfer with Hands-on Lab and training certificate for 10 system and storage administrators		
	4.1.b. Vendor must provide for the necessary training logistics and paraphernalia for the participant's needs		

	without additional cost to the bank		
	4.1.c. Vendor must provide a copy of storage manuals stored in a USB drive.		

5. QUALIFICATION AND DOCUMENTARY REQUIREMENTS				
	QUALIFICATION REQUIREMENTS	DOCUMENTARY REQUIREMENTS		
5.1 Qualifications and Documentary Requirements	5.1.a. Vendor must be a certified partner or reseller of the proposed solution	Manufacturer's Certificate		
	<p>5.1.b. Prior to submission of bidding proposal, the vendor must coordinate with LANDBANK-DCMD to conduct a site survey at Data Center Head Office and DR site to check the existing site condition and completely assess the requirements as part of the proposed solution without additional cost to the Bank. The survey is necessary to ensure that the proposed solution will be able to function properly and according to expectation.</p> <p>The site inspection will be conducted at least three (3) calendar days before opening of bids from Monday to Friday 8:00am-3pm. Contact persons are Ladybird Carag and Arnhel Alfred Ballocanag with email addresses</p>	<p>Non-disclosure Agreement (NDA) signed by the bidder's authorized representative must be submitted two (2) calendar days prior to the conduct of site inspection.</p> <p>Certificate of Inspection will be issued by DCMD Head for the bidders who will conduct site inspection which shall be form part of the bid proposal.</p>		

<p>icarag@mail.landbank.com and aballocanag@mail.landbank.com. They can be contacted thru phone number 8-5220000 local 7763.</p>			
<p>5.1.c. Principal/Partner must have completed at least three (3) Mainframe storage projects for the last five (5) years.</p>	<p>List of three (3) completed Mainframe storage projects in the Philippines for the last five (5) years. Include company name, name of project, contact numbers and email address of vendor's clients supported with copies of Purchase Order or Contract.</p>		
<p>5.1.d. The proposed storage system brand and model must include a technology roadmap for at least the next three (3) years to ensure the availability of the storage system for the next three to five years.</p>	<p>Manufacturer's Certificate of Product technology roadmap</p>		
<p>5.1.e. Support personnel must also be certified, knowledgeable and experienced on Mainframe Storage connectivity, configuration with the enterprise and midrange operating systems and Mainframe storage performance optimization, z/Virtual</p>	<p>Curriculum vitae of at least five (5) onsite support personnel must be provided in the bidding document</p>		

	<i>Storage Extended (z/VSE), Multiple Virtual Storage (MVS) and z/OS operating systems definition and tuning.</i>		
	<i>5.1.f. Support personnel must be a certified support engineer</i>		
	<i>5.1.g. Support personnel must be knowledgeable with Mainframe server, storage, and appliance media zoning.</i>		
	<i>5.1.h. Support personnel must be knowledgeable on Mainframe backup system/appliance solution model/product line with at least five (5) years' experience in backup management and maintenance</i>		
	<i>5.1.i. Must be able to provide support for Mainframe Storage Systems and its components.</i>		

6. GENERAL AVAILABILITY			
6.1. Product Offering	6.1.a. Proposed storage model for both sites must be brand new		
	6.1.b. The storage model /product line must not be more than two (2) years old in the market, starting from the date of the pre-bid conference for this requirement.		
	6.1.c. The proposed storage model/product must be verifiable via published public documents or thru the product's website.		
6.2. Delivery	6.2.a. Must be able to deliver the storage system and related components within forty five (45) calendar days to both sites		

	(HO and DR) upon receipt of the Notice to Proceed (NTP)		
	6.2.b. Setup of storage must commence in the production site starting at the third business day from the date of delivery		

7. OPERATIONAL REQUIREMENTS			
7.1. Operational Requirements	7.1.a. The necessary operational requirements must be sufficient enough to enable the operation of the storage system, without major modifications on the sites' structural design		
	7.1.b. The necessary operational requirements modifications must at least follow the Bank's existing site and structural design		
7.2. Deployment	7.2.a. The Winning Bidder must be able to determine the appropriate product for Landbank's storage requirements, including those specified in this document. The vendor must size the necessary prerequisites, including storage hardware peripherals to be able to implement the storage system requirement		

8. DOCUMENTATION			
8.1 Configuration, Operation, and Deliverables	8.1.a. The Winning Bidder must provide documentation on the storage system configuration,—this documentation will serve as additional inputs during health checks, problem determination and issue resolution.		
	8.1.b. The Winning Bidder must provide documentation on every deliverable specified in this document to record completion.		
8.2 Media and Format	8.2.a. All documentation must be in hard or soft copies		
8.3 Ownership	8.3.a. All documentation shall be the property of the Land Bank of the Philippines and shall reserve the right to reproduce at		

	no additional cost.		
8.4 Other Provisions	8.4.a. The Winning Bidder must comply with the requirements in relation to Third Party/Vendor Assessment conducted by the Bank. Must submit [e.g. Latest Financial Statement (FS), Business Continuity Plan (BCP) that are related to the Bank, and List of Updated Technical Support (include name, contact numbers, and email address) etc.]		

9. DELIVERY SCHEDULE AND PAYMENT TERMS			
9.1. Delivery	9.1.a. Must be able to deliver within forty five (45) calendar days to Landbank Head Office site upon receipt of the Notice to Proceed		
	9.1.b. Setup of proposed solution must commence in production site (Head office) starting at the third calendar day from the date of delivery and must be completed within thirty (30) calendar days		
9.2. Payment Terms	9.2.a Payment shall be 50% upon delivery and 50% upon project completion. Payment shall be through direct credit to the Supplier's deposit account with LANDBANK. Supplier is required to maintain a deposit account with LANDBANK's Cash Department or any of its Branches.		
END of Terms of Reference			

Noted/Approved by:

Josie M. Castro
JOSIE M. CASTRO
 Assistant Vice President, DCMD

Revised Annex D-11

RESPONSES TO BIDDER'S QUERIES AND/OR SUGGESTIONS

DATE	May 10, 2023
PROJECT IDENTIFICATION NO.	ITB-GS-20230404-02
PROJECT NAME	Supply, Delivery, Installation and Configuration of LANDBANK'S Mainframe Storage in the Head Office and Disaster Recovery Site
PROPONENT UNIT/TECHNICAL WORKING GROUP	DATA CENTER MANAGEMENT DEPARTMENT

ITEM NO.	PORTION OF BIDDING DOCUMENTS	QUERIES AND/OR SUGGESTIONS	LANDBANK'S RESPONSES
1	Terms of Reference (TOR) 2.1.g.	What type of Disk is required to compose the 53TiB storage? (e.g. NVME, SSD, 10KRPM?, NL-SAS / 7.2K RPM)?	2.1.g. The storage should support all-flash deployment that is equipped with encryption-capable flash drives.
		On the connectivity does it require to have both high performance FICON & 32gb host adapter in the same time or either of two? How many ports will be provided?	The same. Up to 24 ports.
2	Terms of Reference (TOR) 2.2.v.	Does Landbank accept Supplier Certification of Product technology roadmap	Yes. Remove in 2.2.v then added line 5.1.d. 5.1.d. The proposed storage system brand and model must include a technology roadmap for at least the next three (3) years to ensure the availability of the storage system for the next three to five years. <ul style="list-style-type: none"> • Manufacturer's Certificate of Product technology roadmap
3	Terms of Reference (TOR) 3.1.c.	What is the current storage replication being used from prod to dr?	To be answered during site visit.
4	Terms of Reference (TOR) 3.1.g.	Does the Decommissioned storage are free of MA liability in which a third-party hauler will be able to move them?	No MA liability.
5	Terms of Reference (TOR) 5.1.e.	Under item 5 "Qualification & Documentary Requirements", are there specific support qualifications that LBP needs pertaining to the support for the storage?	Yes. Added lines. 5.1.e. Support personnel must also be certified, knowledgeable and experienced on Mainframe Storage connectivity, configuration with the enterprise and midrange operating

ANNEX H-1

			<p>systems and Mainframe storage performance optimization, z/Virtual Storage Extended (z/VSE), Multiple Virtual Storage (MVS) and z/OS operating systems definition and tuning.</p> <p>5.1.f. Support personnel must be a certified support engineer</p> <p>5.1.g. Support personnel must be knowledgeable with Mainframe server, storage, and appliance media zoning.</p> <p>5.1.h. Support personnel must be knowledgeable on Mainframe backup system/appliance solution model/product line with at least five (5) years' experience in backup management and maintenance</p> <p>5.1.i. Must be able to provide support for Mainframe Storage Systems and its components.</p> <ul style="list-style-type: none"> Curriculum vitae of at least five (5) onsite support personnel must be provided in the bidding document
6	Terms of Reference (TOR) 5.1.c.	For item 5.1.c., do vendors need to provide local referential bank with storage that are attached to mainframe?	<p>Yes.</p> <p>5.1.c. Principal/Partner must have completed at least three (3) Mainframe storage projects for the last five (5) years.</p> <ul style="list-style-type: none"> List of three (3) completed Mainframe storage projects in the Philippines for the last five (5) years. Include company name, name of project, contact numbers and email address of vendor's clients supported with copies of Purchase Order or Contract.
	Terms of Reference (TOR) 2.1.n.	1. Item 2.1.n requires proponents on the project to support encryption and authentication of hosts on	2.1.n. The storage should support 32 Gbps host adapters with authentication and line-rate encryption or similar

		<p>the storage system</p> <ol style="list-style-type: none"> 2. Enabling this feature would introduce considerable performance impact on the host IO's as every read and write operation would have to be authenticated and encrypted as it passes from storage FC adapters to host FC adapters and vice-versa 3. An alternative to this requirement would be enabling encryption at the Z-System which allows for encryption for Data-at-Rest and Data-in-Flight while maximizing the performance between devices 4. This requirement is a unique feature specific to a single storage vendor which would limit the participation of other bidders to the bid 	<p>technology.</p>
	Terms of Reference (TOR) 2.2.m.	<ol style="list-style-type: none"> 1. Item 2.2.m requires proponents on the project support transfer of backup data through direct communication to a tape device 2. The requirement claims that sharp reduction on IBM Z MIPS usage would be realized without any specific details on how much usage reductions could be achieved as compared to the current backup process 3. This requirement is a unique feature specific to a single storage vendor which would limit the participation of other bidders to the bid 	<p>2.2.m. The storage should support to directly move data to tape without data going through the host or similar technology/functionality, which can sharply reduce IBM Z MIPS usage during the backup periods.</p>
	Terms of Reference (TOR) 1.1.a.	<p>Is the 120 Mandays for 2 sites already or for 1 site ?</p>	<p>For two (2) sites</p>
	Terms of Reference (TOR) 2.1.1.c.	<p>the Power 9 is a proprietary technology of IBM, can we provide an equivalent processor for this ?</p>	<p>Yes.</p> <p>2.1.c. The storage should support Power9 processor-based systems or</p>

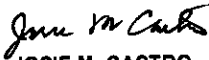
			similar technology/functionality with 8 billion transistor
	Terms of Reference (TOR) 2.1.p.	If the proposed storage doesn't support an earthquake Resistance kit, can we provide a documentation that the storage can withstand earthquakes?	No.
	Terms of Reference (TOR) 3.1.c.	can you provide us the list of applications that would be migrated for the production & the DR?	Will be addressed during site survey.
	Terms of Reference (TOR) 3.1.g.	can you provide us the exact location of the warehouse?	Will be addressed during site survey.

Prepared by:


MARYJANE L. RAMIREZ

Name and Signature of Assigned

Reviewed by:


JOSIE M. CASTRO

AVP, DCMD

ANNEX H-4