LANDBANK

SUPPLEMENTAL/BID BULLETIN NO. 2
For LBP-HOBAC-ITB-GS-20191122-01

PROJECT	:	**Storage System Solution for Midrange and Enterprise Platforms**
IMPLEMENTOR	:	**Procurement Department**
DATE	:	**December 20, 2019**

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 site inspection is scheduled on **January 3, 2020, 10:00 A.M. to 5:00 P.M.** Prospective bidders shall coordinate with Mr. Arnhel Alfred Ballocanag or Ms. Ladybird Carag of DCMD at telephone number (02) 8522-0000 local 7600 as regards the conduct of site inspection.

2) The Terms of Reference (Annex A), Section VII (Specifications) and the Checklist of the Bidding Documents (Item Nos. 8 & 15 of the Eligibility and Technical Component) have been revised. Please see attached revised Annexes A-1 to A-19 and specified sections of the Bidding Documents.

ALWIN I. REYES, CSSP
Assistant Vice President
Head, Procurement Department and
HOBAC Secretariat

Specifications

Specification	Statement of Compliance **Bidders must state below either "Comply" or "Not Comply" against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered.** 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 provisions of **ITB** Clause 3.1(a)(ii) and/or **GCC** Clause 2.1(a)(ii)
Storage System Solution for Midrange and Enterprise Platforms For current and past suppliers of information technology hardware and/or software for LANDBANK, they must have no delay in the implementation of their ongoing contracts as of the date of opening of bids and must have satisfactory performance in their completed contracts starting in **November 2018** onwards. **A. Specifications:** ■ Total of at least 350TB Uncompressed Useable Storage, with the following distribution: ✓ One (1) Unit 175TB Storage with uncompressed useable capacity for LANDBANK Head Office Data Center	**Please state here either "Comply" or "Not Comply"**

✓ One (1) Unit 175TB Storage with uncompressed useable capacity for LANDBANK Business Recovery Site Data Center

- Three (3) Years 24/7 Local and Remote Technical and Help Desk Support Services

- Three (3) Years Onsite Support Services

- Three (3) Years Annual Health Check (minimum of four [4] mandays per year)

- Educational Credits for Advance Storage Management of the Storage Model for a minimum of six (6) administrators, valid for two (2) years

- Skills Transfer
  - Minimum of five (5) training days
  - Minimum of eight (8) storage personnel
  - Valid for one (1) year

- The bidder must:

  ✓ have certified support personnel on the storage model/product line with at least five (5) years experience in disk storage management and maintenance

  ✓ have support personnel certified, knowledgeable and experienced on the connectivity and configuration with the midrange and Intel servers and operating systems mentioned in Item No. 3.1 of the **Revised Terms of Reference, Annex A-3**

  ✓ have a similar storage system solution implementation with a minimum of 60TB for each one (1) local universal bank, other than LANDBANK and one (1) organization from another industry

  ✓ have two (2) installed base on local and remote data mirroring implementation in two (2) organizations in the Philippines

  ✓ **conduct a site survey on January 3, 2020 (Friday) 10:00am – 5:00pm on both sites (Head Office or Backup site). Contact persons are Arnhel Alfred Ballocanag or Ladybird Carag with contact number 8-522-000 local 7600**

Minimum specifications and other requirements per attached **Revised Annexes A-1 to A-19.**

B. Documentary Requirements

The following documents shall be submitted inside the First Envelope:

1. Duly filled-out **Revised Terms of Reference** signed in all pages by the authorized representative/s of the bidder.

2. Curriculum vitae of at least five (5) onsite support personnel.

3. Documentary proof which shows that the storage model/product line is not more than two (2) years old in the market from the date of the pre-bidding conference.

4. List of similar storage system solution implementation with a minimum of 60TB for each one (1) local universal bank, other than LANDBANK and one (1) organization from another industry, including company and project name with complete contact details and certificate of installation as mentioned in Item No. 11.1.b of the **Revised Terms of Reference, Annex A-16.**

5. Certificate of Installation for two (2) installed base on local and remote data mirroring implementation in two (2) organizations in the Philippines.

6. **Certificate of Satisfactory Performance issued by the Head, Technology Management Group (TMG) not earlier than 30 calendar days prior to the deadline of submission of bid (applicable only for current and past suppliers of information technology hardware and/or software for LANDBANK). The Certificate shall still be subject to verification during the post-qualification of bid.**

   Note: Certificate of Satisfactory Performance/No Delayed Projects shall be requested in writing from FVP Alden F. Abitona Head of TMG at 16th floor, LANDBANK Plaza

Building with contact number 8-522-0000 local 7600, at least five (5) working days prior to the submission of bid.
 	
7. If _not_ a current or previous supplier of LANDBANK:
 	
    7.1 Certificate of Satisfactory Performance from one (1) universal or commercial bank belonging to the 2018 Top 10 Philippine Universal or Commercial Banks; and
 	
    7.2 Certificate of Satisfactory Performance from one (1) company that does not belong to the financial industry.
 	
8. Certificate of Inspection issued by the LANDBANK DCMD Acting Head.
 	
Non-submission of the above mentioned documents may result in bidder's disqualification.	

Conforme:

_____
Name of Bidder

_____
Signature Over Printed Name of
Authorized Representative

_____
Position

Checklist of Bidding Documents for Procurement of Goods and Services

Documents should be arranged as per this Checklist. Kindly provide folders or guides, dividers and ear tags with appropriate labels.

First Envelope - Eligibility and Technical Components

- **The First Envelope shall contain the following:**

  o **Eligibility Documents – Class "A"**

Legal Eligibility Documents

1. PhilGEPS Certificate of Registration under Platinum Membership (all documents enumerated in its Annex A must be updated); or all of the following:

   - Registration Certificate from SEC, Department of Trade and Industry (DTI) for sole proprietorship, or CDA for cooperatives, or any proof of such registration as stated in the Bidding Documents;

   - Valid and current mayor's/business permit issued by the city or municipality where the principal place of business of the prospective bidder is located, or equivalent document for Exclusive Economic Zones or Areas; and

   - Tax Clearance per Executive Order 398, Series of 2005, as finally reviewed and approved by the BIR.

Technical Eligibility Documents

2. Duly notarized Omnibus Sworn Statement (sample form - Form No.6)

3. 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 (sample form - Form No. 7).

4. 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).

5. Statement of the prospective bidder identifying its single largest completed contract similar to the contract to be bid, equivalent to at least fifty percent (50%) of the ABC supported with contract/purchase order, end-user's acceptance or official receipt(s) issued for the contract, within the relevant period as provided in the Bidding Documents. The statement shall include all information required in the sample form (Form No. 4).

6. Bid security in the prescribed form, amount and validity period (ITB Clause 18.1 of the Bid Data Sheet).

7. Section VI - Schedule of Requirements with signature of bidder's authorized representative.

8. **Revised Section VII - Specifications with response on compliance and signature of bidder's authorized representative.**

Financial Eligibility Documents

9. 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.

10. 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.

o **Eligibility Documents – Class "B"**

11. 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.

o   **Technical Documents**

12. Duly filled-out **Revised Terms of Reference** signed in all pages by the authorized representative/s of the bidder.

13. Curriculum vitae of at least five (5) onsite support personnel.

14. Documentary proof which shows that the storage model/product line is not more than two (2) years old in the market from the date of the pre-bidding conference.

15. List of similar storage system solution implementation with a minimum of 60TB for each one (1) local universal bank, other than LANDBANK and one (1) organization from another industry, including company and project name with complete contact details and certificate of installation as mentioned in Item No. 11.1.b of the **Revised Terms of Reference, Annex A-16.**

16. Certificate of Installation for two (2) installed base on local and remote data mirroring implementation in two (2) organizations in the Philippines.

17. **Certificate of Satisfactory Performance issued by the Head, Technology Management Group (TMG) not earlier than 30 calendar days prior to the deadline of submission of bid (applicable only for current and past suppliers of information technology hardware and/or software for LANDBANK).**

18. If *not* a current or previous supplier of LANDBANK:

    18.1 Certificate of Satisfactory Performance from one (1) universal or commercial bank belonging to the 2018 Top 10 Philippine Universal or Commercial Banks; and

    18.2 Certificate of Satisfactory Performance from one (1) company that does not belong to the financial industry.

19. Certificate of Inspection issued by the LANDBANK DCMD Acting Head.

o   **Post-Qualification Documents – [The bidder may submit the following documents within five (5) calendar days after receipt of Notice of Post-Qualification]:**

20. 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.

21. Latest Income Tax Return filed manually or through EFPS.

Second Envelope – Financial Component

- **The Second Envelope shall contain the following:**

    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)

CLASS D

LANDBANK STORAGE SYSTEM SOLUTION FOR MIDRANGE AND ENTERPRISE PLATFORMS TERMS OF REFERENCE 2019

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 storage system.

    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 should be indexed or labeled accordingly for easy identification and validation.

CAPABILITY	REQUIREMENT	WILL COMPLY? YES/NO	REMARKS
1. CAPACITY			
1.1. Usable Capacity Requirement	1.1.a. Total of **at least 350TB uncompressed useable storage**, with the following distribution: • **175TB** storage with **uncompressed useable capacity** for Head Office Data Center • **175TB** storage with **uncompressed useable capacity** for Business Recovery Site (BRS) Data Center		

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1.2. Capacity Architecture	1.2.a. Composition of storage for the 350TB must be all flash and configured on RAID 5 or better;		
1.3.RAID Support	1.3.a. Proposed storage must be able to support at the minimum (Redundant Array of Independent Disks) RAID5		

2. SCALABILITY			
2.1.Disk Drive Support	2.1.a. Fiber Channel disk/drives are **NOT** qualified to be included in the proposed storage system as these are nearing the end of life product cycle.		
2.2.Storage Switch	2.2.a. The proposed solution must include at least two (2) 24-port 16Gbps Fiber Channel Storage Area Network (FC SAN) Switches and at least one (1) 24-port 10GbE SFP+ IP Switch for two (2) sites. The proposed Storage Switch components must be inclusive of the modules, licenses, and cables required for the normal operation of the proposed switches.		
	2.2.b. Fiber Channel (FC) ports on the proposed storage system must support at least 8Gbps Fiber Channel Storage Area Network (FC SAN) Switches and at least 10GbE port speed for Internet Protocol (IP) Switches.		
2.3. Host Connectivity	2.3.a. Storage system must be able to connect to the IBM Power 9 Servers and with its subsequent three generation of models via Fiber Channel (FC) ports.		

REVISED ANNEX A-2

	2.3.b. Storage system must be able to connect to IBM and Dell Intel Blade Servers and with its subsequent three generation of models via Fiber Channel (FC) ports and iSCSI which serve as database - Oracle, DB2, Microsoft Standard Query Language (MSSQL) and application servers – Internet Information Services (IIS), IBM WebSphere Application Server (WAS), Weblogic, Mobius and Systems, Application and Products (SAP).		

3. INTEROPERABILITY			

3.1.Operating System Support	3.1.a. Proposed storage system must be able to support the following minimum version of operating system platforms:
	
	    a. Variants of Unix which includes but not limited to:
	        i.IBM AIX version 7.1 and newer versions
	        ii.Red Hat Enterprise Level 6 and newer versions
	        iii.SUSE Linux Enterprise Server 11 Service Pack 2 and newer versions
	    b. Microsoft Operating Systems which includes but not limited to:
	      Windows 2010 and newer		

3.2. Server Virtualization Support	3.2.a. Proposed storage system must be able to support the following minimum version of server virtualization system platforms:		

Revised Annex A-3

	a. *Server virtualization hypervisors which includes but not limited to:* *i. Microsoft Windows Server 2012 with Hyper-V and newer versions* *ii. Microsoft Windows Server 2010 with Hyper-V VMware vSphere 6 and newer versions* *iii. Citrix Xen Server 6 and newer versions* *iv. Citrix Xen Server 6 and newer versions* *b.* *IBM AIX VIO Server versions which includes but not limited to: 2.1.3.10 and newer versions*		
3.3.Network	3.3.a. Proposed storage system must be able to run on IP or dense wavelength division multiplexing (DWDM)-based platform on CISCO ONS model 15454 technology and higher models		
	3.3.b. Must support the bank's existing SAN director for FC connectivity to the host and subsequent models of the SAN Director belonging to the same class.		
3.4.Backup System	Must be able to support connectivity and functionality of the Bank's backup software and hardware		

4. TECHNOLOGY			
4.1.Integrated Technology	4.1.a. Must be able to use ports as Fiber Channel (FC) or Internet Small Computer Systems Interface (iSCSI) protocols as desired.		

REVISED ANNEX A-4

4.2.Thin Provisioning	4.2.a. Must be able to over-provision applications in order to reduce physical storage capacity requirements, especially when physical capacity is not enough.		
4.3.LUN Migration Capability	Proposed storage system must implore the use of a storage migration tool which can be proprietary to the storage provider or a third party storage migration tool.		
4.4.Instant Copy	4.4.a. Must include software for instant copy and must be able to create copies of data within the storage system in a short span of time, i.e. for 1TB data, instant backup copy in 20 minutes or less		
	4.4.b. Instant backup copy feature must include full source data backup and the capability to copy only the changes made from the source data and storage to the target storage.		
	4.4.c. Instant copy feature must also have the capability to directly restore to the source storage from the backup copy on the storage.		
	4.4.d. The backup copy from the Instant copy functionality must also be transferrable to tape media and restore from tape.		
	4.4.e. Must be able to perform instant copy function on the source storage regardless of the data use whether online or offline		
4.5.Replication	4.5.a. Must include mirroring software and must be able to mirror data from the data center to the BRS on synchronous replication		

Revised Annex A-5

	4.5.b. Replication feature must include full source replication to target storage and incremental replication wherein only the data changes are mirrored to the target storage		
	4.5.c. Data mirroring between two sites must support bi-directional replication and have failover and failback capability.		
	4.5.d. Replication feature must also have the capability to directly restore to the source storage from the backup copy on the remote storage.		
	4.5.e. The backup copy from the replica functionality must also be transferrable to tape media and restore from tape is also a required functionality		
	4.5.f. Must be able to perform replication function on the source storage to the remote storage regardless of the data use whether online or offline		

5. AVAILABILITY			
5.1.No Single Point of Failure / System-Level Availability	5.1.a. Proposed storage system must be able to provide 99.999% availability		
5.2.Data Protection	5.2.a Must be resilient to manage multiple disk failure without data loss and performance impact		
	5.2.b. Should have the capability of de-staging data from cache to disk to ensure data protection in the event of extended power failure.		
5.3.Site-Level Availability	5.3.a. The storage should be able to support both synchronous and asynchronous replication.		

RETILED ANNEX A-6

	5.3.b. Licenses for synchronous and asynchronous replication must be included in the proposed storage system solution.		
5.4.Hot Spares	5.4.a. Must be able to provide automated monitoring of disk drive health and be able to initiate a proactive background drive rebuild on failing drives.		
	5.4.b. Rebuild for a minimum 1TB drive should have little or no rebuild process overhead and performance impact. The bidder must describe the rebuild process as part of their proposal.		
	5.4.c. Must be able to provide hot spares for the offered number of disk drives		
5.5. Load Distribution	5.5.a Must be able to balance data on all system components eliminating the possibilities of a hot-spot being created		
	5.5.b. Must be able to distribute the workload evenly across all hardware component at all times regardless of access patterns.		
5.6.Non-Disruptive Upgrades	5.6.a. The storage should support non-disruptive firmware upgrades.		
5.7. Continuous Roadmap	5.7. 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.		

ALBILGED ANNEX A-7

6. MANAGEMENT			
6.1.Fault Detection and Isolation	6.1.a. Storage must have capability to collect fault conditions and should be able to activate call home feature to speed up problem identification and resolution.		
	6.1.b. Storage management software must be able to send email notifications to administrators on various storage system statuses via the Bank's email system: this feature is a vendor deliverable to configure storage notification feature to work with email.		
	6.1.Must have configured monitoring tool for network and resources.		
6.2.Storage Array Configuration and Management Software	6.2.a. Storage must include a web-based storage configuration and management software with no additional cost		

	6.2.b. Storage management software must include the following functionality but not limited to:
	   a. Performance monitoring
	   b. Reports generation		

	6.2.c. Storage management software must be able to administer to at least **175TB** usable capacity per storage array per site.		
	6.2.d. Storage management software must include security access features that is role-based, for different access privileges for the storage administrators and computer operators.		

REVISED ANNEX A-8

	6.2.e. Storage management software must be able to generate storage allocation and capacity reports on Portable Document Format (PDF) or equivalent non-editable documents.		
	6.3.f. Storage management software must be able to generate performance, Input/output operations per second (IOPS) statistics, usage, allocation, including storage and storage replication throughput, disk utilization and fault reports on PDF or equivalent non-editable documents.		
	6.3.g. Storage management software must be able to provide historical reporting for at least one year data for benchmarking and comparison.		
	6.3.h. Storage management software system requiring a separate server must be included in the proposed storage system.		
	6.3.i Storage management software must have separate management controllers for Wintel and Unix systems on both sites.		

7. WARRANTY AND SUPPORT			
7.1. Storage Support	7.1.a. Proposed storage must include three (3) year warranty certificate on all parts, components, peripherals and both Hardware (parts and labor) and Software included in the bid. Support thru Maintenance Agreements (both for hardware and software, including licenses) starts on the fourth year and pegged at 15% (or less) of the acquisition cost for the succeeding years.		

RETURN ANNEX A-9

		7.1.b. Must include 24/7 local and remote technical and help desk support for three (3) years		
		7.1.c. Remote technical and help desk support to be provided to Landbank must include desktop sharing capability for speedy troubleshooting and problem resolution for three (3) years		
		7.1.d. Must include onsite support for severity one (1) issues for three (3) years. LBP Service Level Agreement (SLA) on incident and problem management will be observed		
		7.1.e. Must include onsite support for non-incident related issues which includes storage configuration customization, performance and data storage use optimization for three (3) years ; Man days for onsite support must not be less than 30 days per year and part of the support and maintenance agreement.		
		7.1.f. Support must always be available and accessible on demand as part of the support and maintenance agreement.		
		7.1.g. 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.		

REVISED ANNEX A-10

7.2. Personnel Qualification	7.2.a. Support personnel must be certified on the storage model/product line with at least five (5) years' experience in disk storage management and maintenance		
	7.2.b. Support personnel must also be certified, knowledgeable and experienced on with connectivity and configuration with the midrange and Intel servers and operating systems mentioned in section 3.1 of this document.		
	7.2.c. Curriculum vitae of at least five (5) onsite support personnel must be provided in the bidding document		
7.3. Offline Storage System Activity	7.3.a. Must provide onsite and remote support for host upgrade and migration activities as part of the support and maintenance agreement		
	7.3.b. Must provide onsite and remote support for storage upgrade and data migration activities as part of the support and maintenance agreement		
	7.3.c. Must provide onsite and remote support for storage related downtime activities which include repairs, preventive maintenance, and data center (head office and offsite) power supply maintenance		
7.4. Onsite Health Check	7.4.a. Must include at least four (4) man days per year for three (3) years, for storage system health checks which will form part of the support and maintenance agreement.		
	7.4.b. Must provide a service or activity report on the checks performed on the storage, including health status and recommendations on storage availability improvements and maintenance.		

REVISED ANNEX A-11

	7.4.c. Storage health check specified man days not fully consumed may be convertible to trainings or education credits		

8. TRAININGS			
8.1.Training on Storage Management and Use	8.1.a. Proposed storage system must include education credits for advance storage management of the storage model for minimum of six (6) storage administrators with a validity of two (2) years from the date of user's acceptance.		
	8.1.b. Proposed storage system must include SKILLS TRANSFER for a minimum of five (5) training days upon setup valid for 1 year on storage management for at least eight (8) storage administrators, technical support and operations personnel.		
	8.1.c. The vendor must also include a preliminary training plan on the training courses to be carried out including the following: • Course Title and Description • Learning Objectives • Class Composition • Course Duration • Training Sequence		
	8.1.e. The vendor must provide for the necessary training logistics and paraphernalia for the participants' needs with no additional cost to the Bank		

Revised Annex A - 12

CLASS D

	8.1.f. For trainings to be conducted at vendor-elected training site, participants must have access to the internet with no additional cost to the Bank, for the duration of the training, for communication, technical support, and correspondence purposes.		

9.	SERVICES				
9.1.	Basic Delivery Services	9.1.a. Proposed storage system must include services such as delivery to site, setup, installation and configuration of all storage hardware and software components.		
		9.1.b. Setup, installation and configuration activities must also include joint inventory of all hardware and software components.		
		9.1.c. Services must include performing setup, installation and configuration to host servers or logical partitions thru Storage Area Network (SAN) and Internet Small Computer Systems Interface (iSCSI) switches or SAN director, and Interlink Switch Link (ISL) services.		
		9.1.d. Services must include implementation of the storage technology functionalities specified in this document and features that are inherent to the storage system.		
		9.1.e. Proposed storage system must include host and data migration services.		

H110 ANNEX A - 1

	9.1.f. Services must include migration, reorganization and optimization of the storage system for at least ten (10) systems in Advanced Interactive Executive (AIX), Red Hat Enterprise Linux (RHEL), and Microsoft HyperV.		
	9.1.g. Storage system via Storage Area Network (SAN) connectivity must be configurable to at least 30 servers or Logical Partitions (LPARs) on a staggered implementation basis.		
	9.1.h. Storage system via Internet Small Computer Systems Interface (iSCSI) connectivity must be configurable to at least 24 ports per site on a staggered implementation basis.		
	9.1.i. Services include installation, setup, configuration and customization of the storage system management software for both sites.		
9.2. Skills Transfer	9.2.a. Must provide skills transfer on the operations of the configured storage hardware and software; LBP IT personnel must be able to apply the new knowledge and skills on the storage system		
	9.2.b. Services must include transfer of technology to LBP IT personnel which includes but not limited to : i. creation and implementation of policies for storage tiering ii. creation and implementation of local instant copy (within the local storage system) iii. creation and implementation of two-site storage replication to and from the BRS		

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	iv. creation and implementation of storage allocation for use by a server or LPAR		
9.3. Relocation	9.3.a. Services must include transport of IBM machines to either the LBP Warehouse and/or LBP Backup Site.		

10. GENERAL AVAILABILITY			
10.1. Product Offering	10.1.a. Proposed storage model for both sites should be brand new		
	10.1.b. The storage model /product line should not be more than two (2) years old in the market, starting from the date of the pre-bid conference for this requirement. (Documentary proof from manufacturer that the model/product is not more than two (2) years old in the market)		
	10.1.c. The proposed storage model/product should be verifiable via published public documents or thru the product's website.		
10.2. Delivery	10.2.a. Must be able to deliver the storage system and related components within 45 calendar days to both installation sites upon receipt of the Notice to Proceed		
	10.2.b. Setup of storage must commence in production site first (Headoffice) starting at the third calendar day from the date of delivery and should be completed within 30 calendar days and will follow the setup for the second site (backupsite) upon completion of the first site and should be completed within 30 calendar days also.		

RETILED ANNEX A - IS

11. REFERENCE			
11.1. Implementation	11.1.a. Must have a similar storage system solution implementation of a minimum of 60 TB, for each one (1) local Universal Bank and one (1) organization from another industry, other than Landbank . Include company name, name of project, contact numbers and email address of vendor clients.		
	11.1.b. References cited in 11.1.a must include certificate of installation that indicates for at least one (1) each implementation for Advanced Interactive Executive (AIX), Redhat Enterprise Linux (RHEL), and Virtualization software for FC and iSCSI connectivity		
	11.1.c. Must have certificate of installation for two (2) install base on local and remote data mirroring implementation in two (2) organizations in the Philippines.		
	11.1.d. The vendor must provide a certification of satisfactory performance: 1. Certification from LANDBANK-TMG if previous supplier 2. or if not a previous service provider of LANDBANK, the prospective vendor/bidder should submit two (2) certifications, one reference from a 2018 top 10 Philippine Universal or Commercial bank and one reference from company in different industry.		

REVISED ANNEX A-16

12. OPERATIONAL REQUIREMENTS			
12.1. Site Survey	*12.1.a. Site survey must be conducted on January 3, 2020 (Friday) 10:00am-5:00pm on both sites (Headoffice and Backup site). Contact persons are Arnhel Alfred Ballocanag and Ladybird Carag; contact number 8-5220000 local 7600.* *Non-disclosure Agreement signed by the bidder's authorized representative must be submitted two (2) calendar days prior to the conduct of site inspection.* *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.*		
	12.1.b. The necessary operational requirements will be part of the bidding proposal and must not entail additional cost to the Bank		
	12.1.c. The necessary operational requirements must be sufficient enough to enable the operation of the storage system, without major modifications on the sites' structural design		
	12.1.d. The necessary operational requirements modifications must at least follow the Bank's existing site and structural design		
	12.1.e. The vendor must provide for the required electrical supply of the storage system which includes cables and necessary wiring to the UPS and provision for circuit switches, breakers		

REVISED Annex A-17

	12.1.f. The vendor must comply to the Bank's compliance requirements (eg. Technology Service Provider Assessment (TSP), Vendor Assessment Report (VAR), etc).		
12.2. Deployment	12.2.a. The vendor 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		
	12.2.b. The vendor must provide for all storage cables that are compatible to the existing CPU and tape subsystem host adapter protocols.		
	12.2.c. The vendor must also include spare storage cable provisions for future host upgrade or migration activities.		

13. DOCUMENTATION			
13.1 Configuration, Operation, and Deliverables	13.1.a. The vendor must provide documentation on the storage system configuration, which includes but not limited to capacity and performance base lining, zoning and connectivity diagrams of attached hosts to storage—these documentation will serve as additional inputs during health checks, problem determination and issue resolution.		
	13.1.b. The vendor must provide documentation on every deliverable specified in this document to record completion.		

REVISED ANNEX A-18

	13.1.c. The vendor must provide documentation on storage operations and must be written in English of durable construction with concise and high quality presentation to include but not limited to the following: 1. User Manuals 2. Technical / Reference Manuals 3. System / Operation Manuals 4. Troubleshooting and Installation Guides		
13.2 Media and Format	13.2.a. All documentation must be in hard and soft copies; Soft copies must be stored either on a compact disk and USB drive; Soft copy documentation must be in a non-editable format.		
	13.2.b. All software used for the implementation of the storage system must be provided with installation media.		
13.3 Ownership	13.3.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.		

END of Terms of Reference

Noted/Approved by:

JOSIE M. CASTRO
Acting Head, DCMD

REVISED ANNEX A-19