

[A] Important Dates:

Sr. No.	RFP	Timeline
4	Last Date of Submission of RFP Response (Closing Date)	22nd December 2021 @ 3 :00 PM Mode: Online on URL: https://www.tenderwizard.com/BOB
5	Eligibility Cum Technical Bid Opening Date	22nd December 2021 @ 3 :30 PM Mode: Online on URL: https://www.tenderwizard.com/BOB 1. The meeting will be held online through Bank's Online Meeting Platform (i.e. Microsoft Teams) 2. Bidders are requested to send bid submission confirmation with their email address for attending online bid opening meeting. on rfp.it.procurement@bankofbaroda.com id after RFP submission time is over.

Addendum to following Annexure

- Annexure 11 –Project Details Scope of Work

All other Terms & Conditions are same as per our RFP for Supply, Installation and Maintenance of Mid-Range Storage Ref no. BCC:IT:PROC:113:53 dated 02nd November, 2021.

Annexure 11 – Project Details Scope of Work

1. Project Scope

The brief scope of Work of the successful bidder is to Supply, Installation & Maintenance of Mid-Range Storage. The services covered as part of the vendor includes, but not limited to the following:

- Supply, Installation & Maintenance of Mid-Range Storage as per Bank's requirement with coordination of Bank's identified teams at Bank's identified location.
- Bank reserves the right to shift the Mid-Range Storage to new location/s, Support & services will continue to be in force at the new location.
- The Successful vendor shall ensure that the storage should have support for a minimum period of 5 years from the date of announcement of end of sale/end of life.
- The Successful vendor need to design the Setup Architecture including physical infrastructure and logical design as per bank's need.
- The successful vendor shall co-ordinate with Bank's identified team to provide support for configuration issues, hardware replacement etc.
- The successful vendor will configure, install, de-install, re-install, re-configure (in case Bank need any configure change) at no extra cost during the entire contract period.
- Supply, commission, install, test, configure, integrate with existing system and maintain the Mid-Range Storage and add on components, which are approved by the bank.
- Break-fix support of supplied Mid-Range Storage and OS/ firmware upgrades for the appliance.
- The successful vendor shall provide patches/ upgrades of OS/ firmware during warranty and AMC period without any extra cost to Bank.
- The successful vendor shall provide timely proactive deployment of latest firmware versions / security patches in coordination with Bank's identified team.
- The resolution/replacement time for any issue will be 4 hours. There should be 24x7x365 support for any technical related issue for all the supplied products through this RFP directly from the OEM and the vendor.
- Bank shall freeze installation setup, configuration and schedule in mutual consultation with the successful vendor and Bank's identified teams.
- Confidentiality of the Bank's setup must be maintained by vendor.
- Engineer from vendor must have adequate knowledge for handling the installation, configuration and support & services for supplied hardware.
- Successful vendor need to provide complete call logging details along with escalation matrix.
- The successful vendor need to specify various infrastructure requirements which need to be provided for commissioning and smooth functioning of the equipment.
- If any services, functions or responsibilities not specifically described in this scope but are an inherent, necessary or customary part of the services and are required for proper performance or provision of the services in accordance with the scope, they shall be deemed to be included within the scope of the services, as if such services, functions or responsibilities were specifically required and described in this scope and shall be provided by the vendor at no additional cost to the Bank.

- After installation, the successful vendor need to provide OEM authorized certification/training program to Bank’s identified people, regarding installation, configuration, operation, basic troubleshooting etc as per Bank’s requirement.
- Vendor is expected to provide post installation support to the Bank. The successful vendor will provide the assistance whenever required. Warranty and AMC support will be provided by the successful vendor.
- Vendor should provide the complete documentation including technical, operations, user manual, etc.

Following documents should be delivered by the Vendor to the Bank including user manuals, installation manuals, operation manuals, design documents, process documents, technical manuals, technical specification, system configuration documents, debugging/diagnostics documents etc.

S No	Minimum Technical Specifications for Enterprise Storage	Compliance (Yes/No)	Remarks
1	Generic Specifications		
1.1	Proposed storage array should be purpose built all flash true enterprise class storage.		
1.2	The proposed storage should be certified for Linux, HP Unix, IBM AIX, Oracle Solaris, Windows and other industry standard operating systems.		
1.3	DC -Mumbai and DR -Hyderabad – to be configured with fully usable space of 2.7 PB each (Excluding all overheads) in Base2 capacity without considering data reduction technologies such as Deduplication ,Compression and thin provisioning etc. The Capacity offered should be fully Usable capacity and must be scalable to minimum 4.5 PB in Base2 usable capacity with the existing controller and without change in existing disk setup . All drives should be either 15 TB or 30 TB NVMe Flash only. The Raid format proposed should be RAID 6 Or equivalent with maximum of 8 drives in case of 30 TB drive Capacity and 24 Drives in case of 15 TB drive capacity. Mix of 15TB and 30TB drives would not be acceptable.		
1.4	Using Raid 6 or equivalent with maximum 24-8-16 drives in Raid form with 70% Read 30% Write Ratio of less than 16 TB drive Capacity. Raid Type should be formed with maximum 8 Drives in Single RAID Group (6D 14 D +2P). All drives should be of NVMe Flash only.		

	<p>i. Using Raid 6 or equivalent with maximum 8 drives in Raid form with 70% Read 30% Write Ratio of 30 TB drive Capacity.</p> <p>ii. Using Raid 6 or equivalent with maximum 24 drives in Raid form with 70% Read 30% Write Ratio of 16 TB drive Capacity.</p> <p>All drives should be of NVMe Flash only.</p>		
2	Data Services		
2.1	Proposed storage should also include Snapshot, Clones, shadow image copy point in time full copy or equivalent , in-system replication or equivalent and Volume cloning features. Necessary licenses for the entire supported capacity of the storage array should be available from day one. Storage system should support at least 3 Point in Time copies (BC copies) within the same storage system for a given production volume.		
2.2	LOCAL REPLICATION FOR GRANULAR RECOVERY: The proposed array must have capability to create up to 256 target less snapshot of a single source volume for granular recovery. Should have the capability to schedule creation, deletion and expiration of snapshots. In case separate licenses are required for local replication the bidder needs to factor all inclusive licenses.		
2.3	LOCAL REPLICATION PERFORMANCE & SPACE EFFICIENCY: The proposed array must have capability to create up to 4024 minimum 1023 mountable space-efficient snapshots or clones of single source volume for various purposes like reporting, backup, test & dev etc. This space-efficient snapshot solution should be based on redirect-on-write (RoW) technology to minimize impact on production volumes / Copy-after-write (CAW) technology but overhead for CAW / RoW to be factored extra on top of 3 million IOPs (in Terms of host) as stated in the RFP.		
2.4	LOCAL REPLICATION REFRESH PRODUCTION COPY: The proposed array local replication solution should provide		

	incremental re-sync of source volumes to snapshots and clones.		
2.5	INSTANT ACCESS OF COPY: The proposed array local replication solution should provide instant activation of point-in-time copies for read/write access, while copying can continue in the background		
2.6	INTRA & INTER ARRAY CONSISTENCY GROUPS: The proposed array remote replication and local replication solution should provide consistency group feature to ensure consistency of the data across multiple volumes of an application within an array or across multiple homogenous arrays.		
3	Architecture And Availability		
3.1	The storage should have capability of 3 way replication with zero data loss to support RTO and RPO		
3.2	The proposed array remote replication solution should provide zero RPO with synchronous mode of operation and should provide RPO of minimal one minute maximum 5 minutes or less with asynchronous mode of operation.		
3.3	It should be capable of switching the remote replication mode from synchronous to asynchronous and vice versa for the same volumes		
3.4	Proposed array should be an enterprise class high end storage with active-active multi-controller scale-up and scale-out architecture. The array should be scalable to minimum 12 active-active storage controllers.		
3.5	The Storage Array should have a NSPoF (No single point of failure) architecture with separate front end modules/ ports (configured in pairs) and separate backend modules/ ports (configured in pairs).		
3.6	Storage to be configured with minimum 8 controllers, from day one, guaranteeing performance and 100% availability of data and should offer at least 64 FC ports of 32 Gbps and 32 X 10Gbps / 8 X 40 Gbps Ethernet ports fully populated from Day 1 .		
3.7	Proposed storages must provide non-disruptive scalability.		

3.8	The proposed storage array should be enterprise class have active- active controllers with NSPoF (No Single Point of failure) architecture & 99.9999% availability with NVMe Drives. Proposed storage array should have at least 8 controllers.		
3.9	The storage should be able to provide Six 9's availability (99.9999%) at any point of time even in case of two controller failure and backplane failure cases		
3.10	Non-disruptive LUN/volume access even in case of node/controller failure should be available.		
3.11	The proposed array should be a true enterprise-class storage, supporting block (FC and iSCSI) services and VVOLs. Proposed storage should also support NDU software, hardware, firmware upgrades. No rolling outage upgrade and No controller Failover Failback processes should be involved during firmware / microcode upgrade. Any such a activity should be transparent to Operating system and Application services.		
3.12	Proposed storages must have minimum 8 controllers, with active- active capability to assure high availability of data with load balancing.		
3.13	Proposed storage must support SSD drives with various capacities available. (7.6TB,15.36 TB) Complete Proposed Storage Usable Capacity should be on same type (NVME) & same size (TB) capacity		
4	Data Services		
4.1	The proposed array must provide an audit service to record activities including host-initiated actions, physical component changes, attempts blocked by security control. Audit log should be secure and tamper-proof.		
4.2	The proposed array must support traditional (Vmware, Oracle) NAS use cases in the future. OEM need to facilitate required license		
4.3	Proposed storage must support all industry standards RAID levels like RAID 5, 6 or equivalent		

4.4	Proposed storage must support mix RAID configuration behind controllers/node.		
4.5	The storage array should allow online expansion of existing RAID Groups /Storage Disk Pools.		
5	Data Encryption		
5.1	The proposed array must provide storage controller level Data at Rest Encryption solution to encrypt data on all drives. Array should support either embedded automated key management with no user intervention at any time or integration with KMIP standard external Key managers like IBM SKLM and Gemalto SafeNet KeySecure. It should support: KMIP 4.5-1.2 (higher as well backward compatibility). Also should have backward support.		
5.2	Bidder needs to integrate proposed key management KMIP solution with the existing key management solution of the Bank.		
5.3	Under no circumstances the storage administrator, security administrator, or any other user be able to disable encryption for any individual RAID group or individual drive.		
5.4	Encryption should not add any performance overheads		
5.5	Encryption mechanism should comply with the regulatory compliance as per RBI & BOB guidelines.		
6	Data Reduction for space efficiency		
6.1	The proposed array must provide enterprise class data services including – Thin Provisioning, Inline Compression & De-duplication, Replication, Snapshot with ROW algorithm. In case Copy-after-write / Copy on-write technology used then additional overhead for COW / CAW / RoW to be factored extra on top of 3 Million IOPs (in Terms of host) as stated in the RFP.		
6.2	Storage should allow enable/disable of data services per application storage groups (single or group of LUNs). Data reduction must be supported on block.		
6.3	The proposed array should provide inline compression of application data for space		

	efficiency. It should be possible to enable or disable		
6.4	compression on an application storage group (single LUN or multiple LUNs), as and when required.		
7	Storage Connectivity		
7.1	The storage system controllers should be connected via redundant hi-speed low-latency interconnects using minimum PCIe 3.0 connectors. All the interconnectivity with controllers and other components should be configured within the array and should not use any external devices. The offered storage solutions should not use interconnects such as Ethernet or FC for inter-controller connectivity or communications.		
7.2	Should be able to add Ethernet ports in future to support file protocols (NFS, CIFS) or Block Protocol Access (FC/iSCSI) when needed.		
7.3	Array must be capable of upgrading more FC, iSCSI, eth ports online in future.		
7.4	The array should be supplied with OEM recommended back end ports and speed considering the best available technology.		
7.5	The proposed array should support native and embedded block protocols (FC & iSCSI) or Block Protocol Access (FC/iSCSI) and should be able to add file data services (NFS, CIFS) in the future		
7.6	The proposed array should scale to at least 128 x 32 Gbps FC/ FICON front end ports to provide scalable and dedicated connectivity to open systems and remote replication		
7.7	From day one, the storage solution should support FC and iSCSI, FICON , NVMe over FC connectivity natively and should not require external hardware to support these protocols and connectivity.		
7.8	Back-end ports: Offered storage array architecture shall be based on latest generation technology of minimum 32Gbps FC for Front-end while backend should support PCIe for NVMe SSDs to offer faster communication using minimum PCIe 3rd generation IO modules.		
8	Storage Performance		

8.1	Storage array must deliver sustained 3 million IOPs (in terms of host) in Read Write Ratio of 70:30 with 16 KB work load – with less than one milli second response time at fully populated capacity even in case of controller or node failure.		
8.2	Performance has to be measured through IO meter tools for proposed solution on 3 million IOPs from storage to the hosts. Testing to be done with storage onsite and can leverage load generation servers from OEM’s lab.		
8.3	The storage should be configured with NVMe Flash drive NOT larger than 46 30 TB .		
9	Data Availability		
9.1	The proposed array must protect data in cache during a manual power down or an unexpected power outage by vaulting or destaging the data in cache to non-volatile flash modules.		
9.2	In the event of power failure, Data in the cache should be safely written to the disks prior to performing a graceful shutdown.		
9.3	Data loss in storage should be zero.		
9.4	Array should be supplied with at least usable 2 TB DRAM Cache with scalability up to usable & 6 TB at Primary and Secondary DCs. All writes in DRAM or control cache or NVRAM must be mirrored across controllers for performance and serviceability.		
9.5	The Data Services such as snapshots, Concurrent and cascaded replication, etc should not have any overheads on the storage performance.		
9.6	The proposed array should provide partitioning of DRAM Cache and allow allocation of portions of cache to specific workloads. DRAM Cache partitions should be dynamic and allow the temporary donation of unused cache to other partitions after a specified donation time. The proposed array should provide the efficient user of controller cache or provide partitioning of DRAM cache to allow allocation of portions of cache to specific workloads. For DRAM Cache		

	partitions it should be dynamic and allow the temporary donation of unused cache to other partitions after a specified donation time and for controller cache it must be able to dynamically allocate the workloads without any performance issue of and applications.		
9.7	The proposed array should provide QoS feature to limit the amount of IO (IOPs) or bandwidth (MB/s) a particular application can drive on the array.		
9.8	QoS feature should allow the administrator to limit front-end (FE) port performance by either IOPS, Host MB per host, or combination of both on an application Storage Group level (single LUN or Multiple LUNs).		
10	Storage Management Software and Hardware		
10.1	The proposed array should be supplied with native Storage management software with Web based GUI capable of generating customized reports, real time monitoring, historical performance data for analysis, predictive analysis, and trending, forecasting of performance and capacity and utilization monitoring and automatic call log system (integrated) to OEM-storage support team for any issues in the complete storage infrastructure along with alerts to defined users.		
10.2	Storage management software should be able to identify performance bottleneck, Root Cause Analysis at host, SAN and storage level and should be able to troubleshoot storage performance problems.		
10.3	Proposed storage management software should provide management of multiple storage system from single console.		
10.4	Web based software should be accessible from any intranet and internet connected devices.		
10.5	Proposed management software should monitor end-to-end physical and logical topology from virtual hosts to SAN switches to storage array, chargeback feature, real time monitoring, historical performance data for analysis and trending, capacity utilization monitoring, third-party software support		

	for alerting and incident monitoring (such as Microfocus Operations Bridge/Manager- OM/OBS).		
10.6	The storage system should provide automatic detection of errors, predict errors / hardware fault, error logging and to send notification for alerts generated in the end to end infrastructure of proposed Solutions.		
10.7	All the necessary hardware required to monitor/automatic failure alert for the storage at all the three sites to be provided and needs to be setup, installation and initial configuration by OEM team.		
10.8	Proposed solution should also have monitoring and management tool with support for one year 2-years of historical reporting. Software should provide monitoring and reporting multiple storage system, VMware environment and SAN switches. Software should also provide monitoring of DWDM link between PDC and NDC (NDR). Required on-prem software and hardware should be included in the solution and the software should be accessible from any internet and intranet connected devices.		
11	Security Compliance		
11.1	Proposed storage must have Controller Based Data at-rest Encryption (D@RE or equivalent), HIPPA compliant , TLS 1.3 1.2 (above and backward compatibility) support, native SHA [256] certificate support, IPV dual stack certified, FIPS 140-2 Level 2 certification, Common Criteria Certification international standard (ISO/IEC 15408) for computer security certification, KMIP 1.5 1.2 (above and backward compatibility) compliant, STIG CAT1 and CAT2 compliance, PCI DSS 3.2 compliance.		
11.2	The proposed array should provide end-to-end T10-DIF or equivalent throughout the design, including front-end, cache, back-end and disk to ensure data check and integrity at every point.		
12	Application Aware Automatisation and Orchestration		

12.1	The proposed array should support direct backup of production volumes to a secondary storage / backup appliance.		
12.2	Proposed storage solution should support Vmware VAAI, SRM, VASA, VVOLs and Vmware cloud foundation for multi-cloud data mobility. Detailed document to be provided for the same.		
12.3	Data Archiving Support		
13	Storage Resource Pooling		
13.1	The proposed array should support mixing of different capacity of NVMe based SSD disk in single storage pool. Single storage pool should be accessible to both controllers. Proposed storage should also support growing capacity by granular groups of at least 8 or more 24 drives for granular upgrades.		
14	Software & Licensing		
14.1	All necessary software, tools to protect, manage, monitor, upgrade for full capacity of storage must be made available from day one.		
14.2	All the required and necessary licenses must be provided for the Full capacity of the storage from Day one (Except Storage to Storage Replication capacity license which is to be provided as follows: PDC : 140 TB Usable capacity DRS : 140 TB Usable capacity NDR : 140 TB Usable capacity		
14.3	Licenses for Management and monitoring module and all the storage features such as Snapshot, shadow image point in time full copy , in-system replication, Cloning, Sync and A-sync Replication etc to be provided.		
15	Firmware		
15.1	Storage array Should Support online non-disruptive upgrade of firmware and other components without a need for application downtime, there should be no unexpected reboot of the controller during firmware, OS Upgrade and other upgrades.		
16	Warranty And Support		
16.1	Proposed OEM or bidder must provide 3 years of comprehensive On- Site support warranty and 2 years of AMC including part replacement / repairs within 4 hours of reporting.		

16.2	Software support for updates, upgrades, patches, and bug fixes for supplied s/w from OEM 24 x 7 x 365 days.		
16.3	SSD drives should be covered for irrespective of read/writes on them.		
16.4	In case of Disk failure, the faulty disk will be retained/destroyed by Bank.		
16.5	Proactive storage monitoring & support from OEM should be enabled.		
16.6	The proposed bidder will need to ensure support of product & change of components @ zero cost in case of any part becoming obsolete		
17	Spare Disk		
17.1	The Proposed storage array should be configured with a Double drive failure protection to ensure higher availability, reliability and serviceability. There should not be any data loss even with a double drive failures.		
17.2	No Data Efficiency features such as data deduplication or compression to be considered to arrive at the usable capacity.		
17.3	Array should be supplied with minimum ONE global hot spare disk/capacity for every 24 disk of same capacity and speed.		
17.4	The storage should be configured with Flash drive NOT larger than 46 30 TB.		
18	O/S Support		
18.1	Storage array should Support for multiple and Latest OS including Window, Solaris, Linux, HP-UX, AIX, IBMi		
18.2	and Hypervisors like Windows, Linux, Unix, VMWARE vSphere and Microsoft Hyper-V, Vmware vVOL, Hyper-V, Open stack, RHEV.		
18.3	Storage array should have tight integration with vSphere Virtual Volumes Vvol, VAAI, VASA and Microsoft offload data transport (ODX)		
19	CPU Core Pooling:		
19.1	The proposed array should support pooling of CPU cores at front-end and back-end for improved and predictable performance. To effectively service various types of workloads the propose array should allow moving of CPU cores from front-end ports to back-end ports and vice versa.		

	The proposed array should support pooling of CPU cores at front-end and back-end for improved and predictable performance or proposed array should provide efficient utilization of CPU cores to effectively service various types of workloads.		
20	LUN Scalability		
20.1	The proposed array should support creation of up to 64K LUNs / Volumes AND should support both sync and async replication.		
21	Data Compression for Remote Replication		
21.1	The proposed array shall be able to compress the data as it is replicated to remote site to reduce link bandwidth requirements, regardless of the connectivity over FC or Gigabit Ethernet using FCIP routers. Any additional Router/devices requirement will be provided by the Bank. However in-case any licenses are required for performing the activity the same needs to be factored by the bidder as part of the proposal.		
23	Secure & Tamper- Proof Audit Trail		
23.1	The proposed array must provide an audit service to record activities including host-initiated actions, physical component changes, attempts blocked by security control. Audit log should be secure and tamper-proof.		
24	Non- Disruptive Migration		
24.1	The proposed array should have the capability to non-disruptively migrate data from old generation of array		
25	Service Levels		
25.1	The proposed array should have service levels capability to prioritize the performance response time of applications based on relative business requirements. It should allow users to consolidate multiple applications on a system and set priorities based on business needs		
26	End of Sale		
26.1	The product / storage array should not be in any roadmap for End of Sale in next seven years as on date of RFP.		

2. Monitoring and Audit

Compliance with security best practices may be monitored periodically by computer security audits / Information Security Audits performed by or on behalf of the Bank. The periodicity of these audits will be decided at the discretion of the Bank. These audits may include, but are not limited to, a review of access and authorization procedures, backup and recovery procedures, network security controls and program change controls. The Vendor must provide the Bank access to various monitoring and performance measurement systems. The Vendor has to remedy all discrepancies observed by the auditors at no additional cost to the Bank.

3. General Conditions

- a) For installation work, it shall be the responsibility of the successful vendor to arrange and provide requisite tools, testing & measurement equipment and all other things required for carrying out the installation job as per the industry practice and safety norms.
- b) The Bidder shall ensure that no other equipment / structure / setup get damaged due to their activities. Any damages caused to Bank property due to Bidder's negligence shall be passed on the Bidder's account
- c) Bidder shall complete the entire work and make all the systems operational (Supply, Installation, Acceptance and handing over to Bank within stipulated timeline mentioned in this RFP.
- d) The support shall be on 24*7*365 basis
- e) There will be an acceptance test by the Bank after installation of the storage. In case of discrepancy, the Bank reserves the right to cancel the entire purchase contract and the bidder should take back their equipment at their costs and risks. The test will be arranged by the bidder at the sites in the presence of the officials of the Bank and / or its consultants.

4. Technical Proposal Attention Items

- a) This RFP is not a contract offer. Receipt of a proposal neither commits Bank to award a contract to any bidder, nor limits Bank's rights to negotiate with any bidders, suppliers or contractors in Bank's best interest. Bank reserves the right to contract with any bidder, supplier or contractor at its own discretion.
- b) Bank reserves the right to request additional information necessary and pertinent to the project so as to assure the bidder's ability and qualification to perform the contract.
- c) Failure to answer any questions within stipulated timeline at any stage of this RFP may be considered non-responsive and the proposal may be disqualified.
- d) For any ambiguity, omissions or unclear content in the RFP the bidders should request Bank to clarify along with pre-bid queries within the time line mentioned in the "[A] Important Dates.
- e) For all technical details and relevant standards and specifications of this RFP that may not be stated in detail; bidders should ensure and provide quality and industrial standard products to Bank.
- f) In case of any difference in the standards between this RFP and the bidders' proposal, the higher standards shall prevail and be applicable.

- g) Expenses incurred in the preparation of proposals in response to this RFP are the sole responsibility of the bidders.
- h) Bank reserves the right to accept or reject any and all proposals, or any part of any proposal, without penalty. Any allowance for oversight, omission, error, or mistake by the bidder made after receipt of the proposal will be at the sole discretion of Bank.
- i) Entire work specified in this RFP shall be carried out on Turnkey basis.
- j) As the contract is on Turnkey solution basis, any other miscellaneous requirements related to the scope described in the RFP or extra work required to be performed due to existing structure limitation shall be provided by the successful bidder even if those items are not mentioned explicitly in this RFP.
- k) All standards to be followed will adhere to Bureau of Indian Standards (BIS) specifications or other acceptable standards.

5. Service Levels and Uptime Guarantee

For details, please refer to Annexure that provides the service levels for Supply and Implementation of Midrange Storage.

6. Delivery

The Midrange Storage must be delivered and installed as per project scope within a period of **8** weeks in totality from the date of placing of purchase order by the Bank. The delivery and installation of storage as per the required scope needs to be completed as per the timelines mentioned above.

Vendor will have to pay late delivery charges to Bank of Baroda @ 1% of the purchase order value inclusive of all taxes, duties, levies etc., per week or part thereof, for late delivery beyond due date of delivery, to a maximum of 5% of the total purchase order value inclusive of all taxes, duties, levies etc. If delay exceeds the maximum percentage of 5%, Bank of Baroda reserves the right to cancel the respective purchase order.

Vendor will be responsible for ensuring proper packing, delivery and receipt of the hardware and software related to hardware at the site(s). Sealed packs will be opened in the presence of Bank of Baroda officials.

All accessories as part of the hardware / software to make the Storage operational should be delivered together with the equipment. Any component has not been delivered or if delivered is not operational on account of which the equipment is not functioning, will be deemed / treated as non-delivery of the equipment thereby excluding the Bank from all payment obligations under the terms of this contract. Partial delivery of equipment is not acceptable and payment would be released as per terms only after full delivery.

7. Installation

Installation at our Mumbai & Hyderabad Office, including unpacking of cartons/ boxes, will be the responsibility of the Vendor. Vendor will have to install the Hardware and hand it over to Bank for acceptance testing within 2 weeks from the date of receipt of the Hardware at our office and Bank's notification for installation of the HW / SW.

Vendor will have to pay late installation charges to the Bank @ 1% of the total Purchase Order Value per day or part thereof subject to maximum of 5% of the total purchase order value, for delay in installation, if the delay is caused owing to reasons attributable to the Vendor.

8. TRANSPORTATION AND INSURANCE

All the costs should include cost, insurance and freight (c.i.f). However, the vendor has the option to use transportation and insurance cover from any eligible source. Insurance

cover should be provided by the vendor till the acceptance of the Hardware by Bank. The vendor should also assure that the goods would be replaced with no cost to Bank in case insurance cover is not provided.

9. Warranty

The Midrange Storage covering all components will remain under, onsite, comprehensive maintenance warranty for a period of three years. The service support during warranty period shall be for complete accessories supplied.

Bidder will have to provide a post-installation warranty as per the terms mentioned below:

- Comprehensive Warranty for 36 Months from the date of installation or 37 months from the date of the delivery whichever is earlier.

Bidder will have to upgrade the Hardware/ Software (in case of requirement) during warranty period at no cost to Bank. Patch updation, security patch updates etc to be done (as and when required) preferably quarterly / half yearly in coordination with the Bank / MSP team.

In event of any equipment / part is replaced or any defect in respect of any equipment / part is corrected for more than one instance of any quarter during the base warranty period of 3 years, where the period of warranty remained is less than twelve month of the comprehensive warranty, the warranty in respect of the entire hardware equipment for which the equipment / part is replaced / defect is corrected, will be extended for an additional period of twelve months from the date of such replacement/ correction of defects.

In case of significant failures of specific component entire hardware/ equipment has to be replaced with new ones in proactive manner. The proactive action has to be taken immediately without affecting the banks day to day functioning and in a mutually convenient time. The proactive action plan is required to be submitted well in advance. Bidder is required to ensure that this kind of situation never arises.

The Bidders warrants that the Goods supplied under the Contract are new, unused, of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided otherwise in the Contract.

The Bidder further warrants that all Goods supplied or Works carried out under this Contract shall have no defect, arising from design, materials, or workmanship (except when the design and /or material is required by the Bank's specifications) or from any act or omission of the Bidder, that may develop under normal use of the supplied Goods or Works in the conditions prevailing in the country.

Warranty should not become void if the Bank buys any other supplemental hardware from third party and installs it with/in these machines. However, the warranty will not apply to such hardware items installed.

Warranty should cover the following:

- a. The equipment should be attended within 4 hours of receipt of complaint (exclusive of travelling time). In case problems persist, systems should be replaced within 24 hours of receiving complaint and alternate system should be given till machine is

- repaired. The replaced equipment should be installed by the bidder at no extra cost to the Bank, so that normal job of the Bank may not get hampered.
- b. Warranty would cover updates/maintenance patches/bug fixes (available from the original equipment manufacturer) for system software & firmware patches/bug fixes, if any, for hardware.
 - c. Providing of all deliverables including warranty services etc. under this contract shall be the sole responsibility of the bidder. Bank will not be responsible for any delays/violation from third party OEMs.

10. Acceptance Test (AT)

AT shall comprise of completion of following activities:

- I. For each installed equipment and IR template should be prepared along with the technical specifications and its value as per quoted product.
- II. Bank personnel will check the working system value against the product value before signing the acceptance of the installation of equipment
- III. In case Bank is not satisfied with installation / configuration, party must reinstall and / or reconfigure the entire / partial solution.
- IV. Running of AT Schedule as per agreed AT Plan for systems

All the License document along with Manual of the equipment's installed should be duly submitted.

11. Annual Maintenance Contract and Annual Technical Support

Bidders must quote for comprehensive on-site AMC, which shall include labor and cost of the material, strictly as per SLA terms, for a period of 2 (two) years after the expiry of 3 years' warranty period as mentioned above. The AMC shall be on-site comprehensive and shall not require the purchaser to procure and store recommended spares at the site during warranty / AMC. Entering into AMC for a lesser number of years (pro-rata charges to apply) shall be at the discretion of BANK.

The minimum AMC (after the warranty period) to be quoted by the bidder in the commercial proposal is 4% per annum on the base price of Hardware. The Comprehensive on-site AMC must be quoted by all the bidders for the subsequent 2 years' period over and above the warranty period. The Comprehensive on-site AMC prices should be based upon the percentage of the Purchase price or prevailing list price at the completion of three years, whichever is lower. Price Bids without AMC shall be summarily rejected. AMC rates must be quoted as per the price bid format enclosed. No other format shall be accepted.

In case of software, Operating System, Equipment Firmware and Equipment OS, during installation, integration, acceptance testing, warranty period, extended warranty period and AMC, all updates and upgrades shall be supplied and installed free of cost on pre-paid freight basis. The support shall have to be mandatorily on-site.

However, in exceptional cases remote support from OEMs'/bidders' software/service centers, through phone/Email/Fax, etc shall also be required and is a must. The time limit within which such calls shall be attended to shall be only based on the SLAs mentioned in this RFP.

12. Handover Services

The handover services are the services provided by the bidder to Bank during the handover period of 15 days which will start after completion of operationalization of Midrange Storage to facilitate an orderly transfer of the Services to Bank and/ or Managed Service Provider of the Bank. Handover Services of Midrange Storage which will be provided by the bidder after installation. The handed over shall include the following but not limited to:

- ▶ The bidder should ensure training for all the users at the time of UAT and bidder should be flexible to give training in the form of knowledge transfer to the users as and when required/demanded by the bank at any point contract period.
- ▶ The Bidder shall provide such necessary information, documentation to the Bank or its designee, for the effective management and maintenance of the deliverables under this assignment. The Bidder shall provide all updated documentation (in English) in electronic form where available or otherwise a single hardcopy of all existing procedures, policies and programs required for Midrange Storage.
- ▶ The Bidder shall provide licenses details.
- ▶ The Bidder must consult with Bank on any Third Party Contracts between the Bidder and Third Parties that are necessary or useful for Bank or a Third Party to perform the Services and arrange for transfer or assignment of such Third Party Contracts that Bank wishes to have transferred or assigned to Bank or a Third Party designated by Bank on commercially reasonable terms mutually acceptable to both Parties.
- ▶ All the warranties held by or in the name of the Bidder shall be assigned or transferred "As is" in the name of the Bank. The Bidder shall execute any and all such documents as may be necessary in this regard.
- ▶ The Parties shall return confidential information.
- ▶ The Bidder shall provide all other Services as may be agreed by the Parties in connection with the assignment.
- ▶ The Bidder recognizes that considering the enormity of the Assignment, the Handover Services listed herein are only indicative in nature and the Bidder agrees to provide all assistance and services required for fully and effectively handing over the Services provided by the Bidder under this assignment and subsequent Agreement, upon termination or expiration thereof, for any reason whatsoever.
- ▶ Handover Process of hardware directly done by the Bidder / OEM. During this handover the Bidder would transfer all knowledge, knowhow and other things necessary for the Bank and / or its MSP to take over and continue to manage the Midrange Storage.
- ▶ The Bidder agrees that in the event of cancellation or exit or expiry of the contract it would extend all necessary support to the Bank as would be required.

Considering the enormity of the assignment, any service which forms a part of the Project Scope that is not explicitly mentioned in scope of work as excluded would form part of this assignment, and the Bidder is expected to provide the same at no additional cost to the Bank. The Bidder needs to consider and envisage all services that would be required in the Scope and ensure the same is delivered to the Bank. The Bank will not accept any plea of the Bidder at a later date for omission of services on the pretext that the same was not explicitly mentioned in the Project Scope.

13. Payment Terms

The Bidder must accept the payment terms proposed by the Bank. The commercial bid submitted by the Bidders must be in conformity with the payment terms proposed by the Bank. Any deviation from the proposed payment terms would not be accepted. The Bank shall have the right to withhold any payment due to the Bidder, in case of delays or defaults on the part of the Bidder. Such withholding of payment shall not amount to a default on the part of the Bank. If any of the items / activities as mentioned in the price bid is not taken up by the bank during the course of the assignment, the bank will not pay the professional fees quoted by the Bidder in the price bid against such activity / item.

The payment will be released as follows:

a) Delivery of Hardware/Appliances/Software

- 70% of the Storage cost on delivery of HW plus 100% of applicable taxes at actuals. The required documents to be provided along with original invoice:
 - a) Original delivery Challans dully stamped and signed by the Bank Official.
- 20% of Storage cost and 100% implementation cost on successful installation of the hardware, software and applicable Service Tax (if any).

SNR case - Wherever installation could not be carried out by the successful Bidder due to the Bank's dependencies like Site not ready etc. even after 60 days beyond the date of delivery then the payment would be released, upon the successful Bidder's submission of certificate from location concerned duly signed (with Bank's seal affixed) by the Bank Authority concerned on the Bank's dependencies like site is not ready etc. However, in such a case the successful Bidder has to give an undertaking to complete installation within a week of being informed that the site is ready.

20% of the HW cost and applicable Service Tax (if any) after two months on delivery of HW

The required documents to be provided along with original invoice:

- a) Original Installation Report dully stamped and signed by the Bank Official along with the signature of the Bidder representative.
 - b) In Case of SNR - Submission of certificate from location concerned duly signed (with Bank's seal affixed) by the Bank Authority concerned on the Bank's dependencies like site is not ready etc. along with an undertaking from Bidder to complete installation within a week of being informed that the site is ready.
- Balance amount of 10% of Storage cost will be released on completion of warranty period plus 3 months or against bank guarantee in the format as specified in Annexure for Bank Guarantee for early release of retention money by a scheduled commercial bank other than Bank of Baroda valid for an equivalent amount valid for the period of warranty period plus 3 months.
- b) AMC / ATS–AMC** payments will be divided into four equal installments for the year and paid quarterly at the end of each quarter, on actuals. The payment will be on production of original invoice against receipt of satisfactory support report of previous quarter from Operations Managers of the Bank. All the above documents to be duly signed by the authorized service delivery head of the bidder.

There shall be no escalation in the prices once the prices are fixed and agreed to by the

Bank and the Bidder. Payment will be release by IT Dept., BCC as per above payment terms on submission of mentioned supporting documents.

The Bank will pay invoices within a period of 30 days from the date of receipt of undisputed invoices. Any dispute regarding the invoice will be communicated to the selected Bidder within 15 days from the date of receipt of the invoice. After the dispute is resolved, Bank shall make payment within 15 days from the date the dispute stands resolved.

14. Right to Alter Quantities

The Bank reserves the right to alter the requirements specified in the Tender. The Bank also reserves the right to delete one or more items from the list of items specified in the Tender. The Bank will inform all Bidders about changes, if any. The Bidder agrees that the Bank has no limit on the additions or deletions on the items for the period of the contract. Further the Bidder agrees that the prices quoted by the Bidder would be proportionately adjusted with such additions or deletions in quantities/items.



Request for Proposal for Supply, Installation and Maintenance of Mid-Range Storage RFP Reference: BCC:IT:PROC:113:53 dated 02nd November, 2021. Addendum 2 dated 15th December 2021
