	Responses to Pre Bid Queries - IT Cloud Solutions/FY:2024-25/RFP/1314 Dated: 31/03/2025				
Si no	<b>RFP Page No</b>	RFP Clause No	Existing Clause	Query Sugestion	Bank's Response
1	23	Applicability of Preference to Make in India, Order 2017 (PPP-MII Order)	Guidelines on Public Procurement (Preference to Make in India), Order 2017 (PPP MII Order and revision thereto will be applicable for this RFP and allotment will be done in terms of said Order	This RFP is a Global tender & almost all the Storage OEMs are does not fall under make in India category. Therefore, we strongly request you to remove this purchase preference clause under PPP-MII Order 2017.	No Change, as per RFP.
2	57	Bidder's Eligibility Criteria, Sr. No. 7	Client references and contact details (email/ landline/ mobile) of customers for whom the Bidder has executed similar projects in India. (Start and End Date of the Project to be mentioned) in the past (At least 2 client references of total 5 Peta Bytes are required)	For more competitive bidding, we request to revise this clause as "Client references and contact details (email/ landline/ mobile) of customers for whom the Bidder has executed similar projects in India. (Start and End Date of the Project to be mentioned) in the past (At least 2 client references with <b>total 2.5 Peta Bytes combinely</b> , are required)	
3	88	Scope of Work and Payment Schedule, Sr. No. 4	All milestones/dates are from the date of purchase order • Delivery of total hardware and software should be completed within 8 weeks. • Bidder to arrange planning and documentation within 10 weeks. • Installation and commissioning should be completed within 10 weeks of purchase order. Delivery locations will be in Navi Mumbai and Hyderabad.	We request to revise the delivery period as: • Delivery of total hardware and software should be completed within <b>12</b> <b>weeks.</b> • Bidder to arrange planning and documentation within <b>16 weeks.</b> • Installation and commissioning should be completed within <b>16 weeks</b> of purchase order. Delivery locations will be in Navi Mumbai and Hyderabad.	No Change, as per RFP.
4	91	Scope of Work and Payment Schedule, Sr. No. 14, Payment Schedule	<ul> <li>50% + taxes of the storage solution (hardware, software and warranty) will be released on delivery of hardware.</li> <li>Remaining 50% + taxes of the storage solution (hardware, software and warranty) will be released on verification of bill of material, storage capacity and performance as given in the RFP by Bank/CDAC/Third party and commissioning of storage solution as well as submission of PBG.</li> </ul>	For better Cash Flow, we request you to please revise the payment criteria as below: • 70% of the invoice value with 100% GST / taxes of the storage solution (hardware, software and warranty) will be released on delivery of hardware. • Remaining 30% of the invoice value of the storage solution (hardware, software and warranty) will be released on verification of bill of material, storage capacity and performance as given in the RFP by Bank/CDAC/Third party and commissioning of storage solution as well as submission of PBG.	No Change, as per RFP.
5	61	7	Area: Number Of Racks Particulars: Controllers 7. The proposed solution model should have at least 80+80 (PR+DR) Storage Controllers or maximum 10% more at each site in scale out architecture on day one which should be divided in not more than 8 storage clusters per site.	Different vendor have different technologies to meet the performance and the contoller count per cluster. since bank has already defined the number of controllers required per cluster, Limiting to 8 cluster would be OEM specific. where a particular OEM has an advantage. There should not be any limit to the cluster count as long we are meeting the number of controller count, performance and rack space criteria. We request Bank to remove the number of cluster count or increase the cluster count to 12.	No Change, as per RFP.
6	62	5	Area: Performance Particulars: Disk Size 5. Maximum size of each NVMe storage drive should be less than 30.xx TB with TLC or QLC drives.	Since Bank is asking for huge capacity, we feel using 30TB drives will lead to longer re-build time and in case of multiple drive failure there are chances of RAID groups going to de-grade mode which might leads to higher latency, impact in the performance and chance of data loss. Hence, we request bank to limit the drive size to 15.xx TB or lesser like production storage.	No Change, as per RFP.
7	62	7	Area: Number Of Racks Particulars: Controllers 7. The proposed solution model should have at least 40+40 (PR+DR) Storage Controllers or maximum 10% more at each site in scale out architecture on day one which should be divided in not more than 4 storage clusters per site.	Different vendor have different technologies to meet the performance and the contoller count per cluster. since bank has already defined the number of controllers required per cluster, Limiting to 4 cluster would be OEM specific. where a particular OEM has an advantage. There should not be any limit to the cluster count as long we are meeting the number of controller count, performance and rack space criteria. We request Bank to remove the number of cluster count or increase the cluster count to 6.	Please refer Corrigendum No. 1
8	64	17	Area: Number Of Racks 17. The proposed solution should accommodate in maximum 630U (maximum 18 racks size i.e. 35U X 18) at each site.	We request bank to clarify if 630U limited to production storage and non production only at each site or total of all sites	No Change, as per RFP. For each Production and Non Production storage, 630U is the maximum rack size. Bidder should try to accommodate the solution in given number of racks, in case the solution mandatorily requires additional racks, upto 20% extra racks may per permitted.

9	65	28	Area: Architecture & Processing Power Particulars: Data Integrity 28. Each controller operating in an active- active cluster environment should have mirroring support for the system's write cache must be battery protected with unwritten data in write cache protected for up to 72 hours in event of power failure. Data integrity must be retained in any case.	Use of battery is a legacy way as the battery may be damaged with time. The technology has evolved over the period and now there are better ways to meet the data integrity. 72 Hours battery backup is OEM specific request bank to change this clause with Must have either Cache battery backup or better technology for fully automatic de-stage of cache to disks during power failure to prevent possible data loss	No Change, as per RFP. Invalid Query
10	65	29	Area: Architecture & Processing Power Particulars: FC Ports 29. Each controller Storage solution must have minimum 8 (4 primary and 4 Secondary) 32Gbps SAN FC ports dedicated for serving SAN requests of Host. Additionally, these ports should also support NVME over fabric protocol	We request bank to clarify if each controller with primary 4 and secondary 4 refer to the HA pair or single controller.	No Change, as per RFP. It refers to HA Pair.
11	65	30	<ul> <li>Area: Architecture &amp; Processing Power</li> <li>Particulars: LAN Port 1</li> <li>30. Each controller must have minimum 4 (2 primary and 2 secondary) x</li> <li>10 Gbps fiber LAN ports or minimum 2 (1 primary and 1 secondary) 25</li> <li>Gbps or higher fiber</li> <li>LAN ports dedicated for serving iscsi and NFS.</li> </ul>	We request bank to clarify if each controller requires 4 ports of 10 Gbps / 2 ports of 25 Gbps each for iSCSI and NFS, which is almost 80 – 10Gbps /40 – 25Gbps ports per cluster for Production Storage as per banks calculation . Since bank has already asked for almost 160 FC Ports of 32 Gbps per cluster these LAN ports requirement seems to be very high and favouring single vendor . Hence, we request bank to please share the workload would be running on NFS and ISCSI or reduce the number of ports recruitment to 4 ports of 10Gbps or 2 ports of 25 Gbps per HA pair.	No Change, as per RFP.
12	65	31	Area: Architecture & Processing Power Particulars: LAN Port2 31. Each controller must have minimum 4 (2 primary and 2 secondary) x 10 Gbps fiber LAN ports or minimum 2 (1 primary and 1 secondary) 25 Gbps or higher fiber LAN ports dedicated for serving data replication.	We request bank to clarify if each controller requires 4 ports of 10 Gbps / 2 ports of 25 Gbps each for replication, which is almost 80 – 10Gbps /40 – 25Gbps ports per cluster for production stoarge only dedicated for replication, as per banks calculation. Where in bank is considering only 60% of capacity for replication. Hence ports requirement for replication seems to be very high and favouring single vendor. Hence, we request bank to please reduce the number of ports requirement to 4 ports of 10Gbps or 2 ports of 25 Gbps per HA pair.	No Change, as per RFP.
13	66	34	Area: Architecture & Processing Power Particulars: Connectivity between HA Pairs 34. Scale out architecture should have at least 100 Gbps bandwidth per controller for backend interconnect switches / InfiniBand switches / pci-e based multilane connectivity between all HA pair. It is required for quick migration of datastore from One HA pair to another HA pair.	We request bank to clarify the need of 100Gbps bandwidth, which is OEM specific and helping particular vendor , Request bank either change and reduce the bandwidth to 50Gbps per controller as it is sufficient for data migration or please share the sizing for 100 Gbps bandwidth requirements per controller for backend connectivity.	No Change, as per RFP.
14	67	37	Area: CAche Requirements Particulars: Data Integrity 37. The storage should dynamically allocate Read Cache and Write Cache from the available cache to accommodate the I/O. The storage architecture should provide battery backup to the entire write cache in case of a disaster i.e. Data in cache should be protected against unexpected power failures for 72 hours of time.	Use of battery is a legacy way as the battery may be damaged with time. The technology has evolved over the period and now there are better ways to meet the data integrity. 72 Hours battery backup is OEM specific request bank to change this clause with Must have either Cache battery backup or better technology for fully automatic de-stage of cache to disks during power failure to prevent possible data loss	No Change, as per RFP. Invalid Query
15	60/167		Maximum size of each NVMe storage drive should be less than 18.xx TB with TLC (Triple Level Cell) drives only	Kindly allow the Drive size as per the recommended best practise sizing of the Storage OEM to meet the perfromance and availability asks	No Change, as per RFP.
16	60/167		The storage bill of material should be from a single OEM i.e. all the storages should be from the same OEM. Bidder cannot quote storage from multiple OEMs	Is the bank looking at only Primary Production Storage and Non- Production storage from same OEM? Can Object storage be quoted from a different brand/OEM?	No Change, as per RFP.
17	61/167		5. Maximum size of each NVMe storage drive should be less than 30.xx TB with TLC or QLC drives.	Kindly allow larger size QLC drives to be quoted, as per latest industry trends QLC drives are available in 75TB configurations, while having all requirements of availability and resiliency catered to.	No Change, as per RFP.

	61/167	Storage solution per site should handle minimum 80 lacs front end IOPS	PLallow Latency allowance of 2-4 ms for the OLC NV/Me ontion at DR site	
	01/10/	(o the block of the contrast o	Fi allow Eatency allowance of 2-4 his for the QEC wwwe option at Drisite.	
		(8 KB block size, 60% read & 40% write) with maximum 2 ms Server side		
		(initiator) latency with 70% cache hit while having capacity optimization		
19		features including snapshot, Replication, deduplication, compression and		
10		encryption enabled. (SI along with OEM need to perform the test onsite		
		after delivery with enterprise level IO test tool as part of acceptance of		
		the solution)		
				No Change, as per RFP.
	62/167	7. The Proposed solution should provide self-encrypting drives or Data	SED are limiting. Is bank ok with System level data encryption: PL allow	
		Encryption at Rest that are AE\$256 EIP\$ 140 - 2 and other industry	Storage level encryption solution	
19		leading encryption algorithm or standards compliant. The proposed	storage level end (prior solution)	
		leading encryption algorithm of standards compliant. The proposed		No Change and an BED
		encryption should not impact performance.		No Change, as per RFP.
	63/167	19. NVMe disk Raid should be formed with maximum 18 drives in Single	Kindly allow the Drive raid group size as per the recommended best	
20		RAID Group (16D+2P).	practise sizing of the Storage OEM to meet the perfromance and	
			availability asks	No Change, as per RFP.
	63/167	Scale out architecture should have at least 100 Gbps bandwidth per	1. Is the bank planning to connect 8x 25 G ports per HA pair for controller	
		controller for backend interconnect switches / InfiniBand switches	interconnect? 2. Volume or Datastore movement from one HA pair to	
		/ nci-e based multilane connectivity between all HA pair. It is	another in Modern Architecture is not part of Management or back end	
		required for quick migration of detectors from One UA and the	switch, it use modern FC and/or ethernet neering between HA pairs for	
1		required for quick migration of datastore from One HA pair to	low latency data movement, limiting it to only othernet and a logacy way	
1		another HA pair.For Non Production Storage(Category 2)	of cluster interconnect restricts wider participation places allow 1300	
21		Connectivity between HA Pairs :34. Scale out architecture should	Commention 8 CAC 50 for non-next during the difference allow 128G	
		have at least 50 Gbps bandwidth per controller for backend	FC connection & 64G FC for non production ( in addition to 100G/50G	
		interconnect switches / InfiniBand switches / pci-e based multilane	ethernet Jper HA pair as an option for vol move feature.	
1		connectivity between all HA pair. It is required for quick migration		
		of detectory between an mA pair, it is required for quick migration		
1		of datastore from One HA pair to another HA pair		Na Change an ear DED
	cc/ac7	Process des 14 bases des des des des des des des des des	to and at a factor of the solution is a start fact bit on the	NO Change, as per KFP.
22	66/167	Storage should be enterprise class (declared in publicly available	Is analyst reference allowed to be quoted for this point	
		documentation) high end storage		No Change, as per RFP.
23	67/167	Array should be supplied with one global hot spare disk for every 25 disks	Kindly allow Equivalent of Spare disk or Reserve spare capacity on the	
25		of same capacity and speed	system .	No Change, as per RFP.
	68/167	62. The Storage array must provide capability for thin and thick	Kindly allow Thin/Thick LUN	
24		provisioning of LUNs along with automatic space reclamation technology		
24		provisioning of LUNs along with automatic space reclamation technology		No Change as ner REP
24	69/167	provisioning of LUNs along with automatic space reclamation technology	Kindly allow Equivalent of designate global bot share disk or. Reserve	No Change, as per RFP.
24 25	69/167	provisioning of LUNs along with automatic space reclamation technology 69. System must have capability to designate global hot spares that can	Kindly allow Equivalent of designate global hot spare disk or Reserve	No Change, as per RFP.
24 25	69/167	provisioning of LUNs along with automatic space reclamation technology 69. System must have capability to designate global hot spares that can automatically be used to replace a failed disk/drive	Kindly allow Equivalent of designate global hot spare disk or Reserve spare capacity on the system .	No Change, as per RFP. No Change, as per RFP.
24 25	69/167 70/167	provisioning of LUNs along with automatic space reclamation technology 69. System must have capability to designate global hot spares that can automatically be used to replace a failed disk/drive 75. Proposed Storage must homogeneously integrate with existing Cloud	Kindly allow Equivalent of designate global hot spare disk or Reserve spare capacity on the system . Kindly expand on the integration with existing storage enevironment,	No Change, as per RFP. No Change, as per RFP.
24 25 26	69/167 70/167	provisioning of LUNs along with automatic space reclamation technology 69. System must have capability to designate global hot spares that can automatically be used to replace a failed disk/drive 75. Proposed Storage must homogeneously integrate with existing Cloud incorporating Broadcom (VMware) technology stack, Commvault Backup	Kindly allow Equivalent of designate global hot spare disk or Reserve spare capacity on the system . Kindly expand on the integration with existing storage enevironment, what integration is the bank envisioning between two different brand	No Change, as per RFP. No Change, as per RFP.
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24 25 26 27 28 29 30 31	69/167       70/167       71/167       71/167       71/167       72/167       72/167       73/167	<ul> <li>provisioning of LUNs along with automatic space reclamation technology</li> <li>69. System must have capability to designate global hot spares that can automatically be used to replace a failed disk/drive</li> <li>75. Proposed Storage must homogeneously integrate with existing Cloud incorporating Broadcom (VMware) technology stack, Commvault Backup Solution and existing storage environment.</li> <li>86. RPO for storage-based replication must be near Zero. Proposed storage should support synchronous replication with support for Near Zero RPO and RTO</li> <li>Total 10.5 Peta Bytes (PB) (5.25 PB at PR site and 5.25 PB at DR site) usable storage space, 80% NLSAS and 20% NVMe TLC drive based Object Storage for two sites</li> <li>Each data drives should have a maximum capacity of 16.xx TB 7.2k RPM NL-SAS HDD and maximum of 16.xxTB capacity drive in SSD.</li> <li>The Storage nodes in the object storage must be provided with redundant physical controllers. Minimum 4 numbers of 25Gbps LAN Ports on each node should be provided. Each node should be a separate appliance or physical servers.</li> <li>Erasure coded data must be encoded efficiently, regardless of object size. Object Storage shall allow any object to be accessed from any node at any site with most recent version of data always available</li> <li>The Object storage proposed should be integrable solution with scale out</li> </ul>	Kindly allow Equivalent of designate global hot spare disk or Reserve spare capacity on the system . Kindly expand on the integration with existing storage enevironment, what integration is the bank envisioning between two different brand storage systems? True Sync replication solution is Zero RPO and RTO, near zero doesn't qualify as Sync but semi-sync / continous replication, is semi- sync/continous replication required instead of Synchronous? Kindly allow High capacity,High density <b>75TB</b> QLC drives in addition of NL SAS drive as well for the solution to have better perfromance and efficiency. Kindly allow High capacity,High density <b>75TB</b> QLC drives in addition of NL SAS drive as well for the solution to have better perfromance and efficiency. Kindly allow OEM to size the bandwidth at the system/cluster level to deliver the asked throughput/Performance, instead of limiting to per node port/s.Pure Storage solution is an odern architecture offering 800G bandwidth at the chassis level with built in Load balancers. the RFP ask-"Object Storage shall allow any object to be accessed from any node at any site with most recent version of data always available" points to inter site/global erasure coding that is not applicable here as the deploymet is for less than 3 sites- here there are only 2Sites in RFp ask- which points to replication, Kinldy clarify.	No Change, as per RFP. No Change, as per RFP.
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24 25 26 27 28 29 30 31 31 32	69/167       70/167       71/167       71/167       71/167       72/167       72/167       73/167	<ul> <li>provisioning of LUNs along with automatic space reclamation technology</li> <li>69. System must have capability to designate global hot spares that can automatically be used to replace a failed disk/drive</li> <li>75. Proposed Storage must homogeneously integrate with existing Cloud incorporating Broadcom (VMware) technology stack, Commvault Backup Solution and existing storage environment.</li> <li>86. RPO for storage-based replication must be near Zero. Proposed storage should support synchronous replication with support for Near Zero RPO and RTO</li> <li>Total 10.5 Peta Bytes (PB) (5.25 PB at PR site and 5.25 PB at DR site) usable storage space, 80% NLSAS and 20% NVMe TLC drive based Object Storage for two sites</li> <li>Each data drives should have a maximum capacity of 16.xx TB 7.2k RPM NL-SAS HDD and maximum of 16.xxTB capacity drive in SSD.</li> <li>The Storage nodes in the object storage must be provided with redundant physical controllers. Minimum 4 numbers of 25Gbps LAN Ports on each node should be provided. Each node should be a separate appliance or physical servers.</li> <li>Erasure coded data must be encoded efficiently, regardless of object size. Object Storage shall allow any object to be accessed from any node at any site with most recent version of data always available</li> <li>The Object storage proposed should be integrable solution with scale out architecture. Entire solution should be from Single OEM and must provide single point of support for all levels of issues/escalations for</li> </ul>	Kindly allow Equivalent of designate global hot spare disk or Reserve spare capacity on the system . Kindly expand on the integration with existing storage enevironment, what integration is the bank envisioning between two different brand storage systems? True Sync replication solution is Zero RPO and RTO, near zero doesn't qualify as Sync but semi-sync / continous replication, is semi- sync/continous replication required instead of Synchronous? Kindly allow High capacity,High density <b>75TB</b> QLC drives in addition of NL SAS drive as well for the solution to have better perfromance and efficiency. Kindly allow High capacity,High density <b>75TB</b> QLC drives in addition of NL SAS drive as well for the solution to have better perfromance and efficiency. Kindly allow OEM to size the bandwidth at the system/cluster level to deliver the asked throughput/Performance,instead of limiting to per node port/s.Pure Storage solution is a modern architecture offering 800G bandwidth at the chassis level with built in Load balancers. the RFP ask-"Object Storage shall allow any object to be accessed from any node at any site with most recent version of data always available" points to inter site/global erasure coding that is not applicable here as the deploymet is for less than 3 sites- here are only 2Sites in RFp ask- which points to replication, Kinldy clarify. Kindly expand on the details and level of integration required, also Please allow bidder to quote best of breed solution for Primary as well as Object	No Change, as per RFP. No Change, as per RFP.

33	73/167		Tiering should be able to set based on Object Size or policy on age of	Is the bank looking to tier data to Hyperscaler cloud, kinldy share details	
			data.	of the Hyperscaler cloud solution.	No Change, as per RFP.
	/3/167		Proposed Object based storage should be fully distributed, symmetrical	1. Kindly allow nomenclature as -Nodes/blade/controllers. 2. Please	
			and scale-out architecture. Minimum 28 nodes per site should be	allow OEM to provide the required bandwidth at the	
			provided for user data access with minimum 4 numbers of 25Gbps LAN	system/chassis(800G) level to deliver the asked	
34			Ports on each node. Each node should be a separate appliance or	throughput/Performance, instead of limiting to per node port/s.	
5.			physical servers.	3.Minimum 28 node limit( is a limiting factor with modern architecture	
				and pointing to a legacy architecture) should be relaxed as upto 28	
				Nodes or higher to allow latest generation future proof storage design	
				and architecture/s.	No Change, as per RFP.
	57	Point 7	Client Ref and contact details of customers for whom the bidder has	Request Bank to ammend the ask for 2 client reference to 1 client.	
35			developed similar projects in India. (at least 2 client references of total 5		
			Peta Bytes are required).		No Change, as per RFP.
	57	Point 8	At least 2 client references along with contact details with install base of	Request Bank to ammend the ask for 2 client reference to 1 client.	
36			minimum 10 Peta Bytes storage total in India of the storage OEM, whose		
			products being proposed as part of this RFP		No Change, as per RFP.
	61	7		Different vendor have different technologies to meet the	
	1			nerformance and the contoller count per cluster, since bank has	
	1			already defined the number of controllers required per cluster	
	1			Limiting to 8 cluster would be OEM specific where a particular	
37	1		7. The proposed solution model should have at least 80+80 (PR+DR)	CEM has an advantage There should not be any live? the the electron	
	1		Storage Controllers or maximum 10% more at each site in scale out	Deivi has an auvantage. There should not be any limit to the cluster	
	1		architecture on day one which should be divided in not more than	count as long we are meeting the number of controller count,	
			8 storage clusters per	performance and rack space criteria. We request Bank to remove	
			site	the number of cluster count or increase the cluster count to 12.	No Change as ner REP
	62	5			
		-		Since Bank is asking for huge capacity, we feel using 30TB drives	
				will lead to longer re-build time and in case of multiple drive failure	
20				there are chances of RAID groups going to de-grade mode which	
50				might leads to higher latency, impact in the performance and	
			5. Maximum size of each NVMe storage drive should be less than 30.xx	chance of data loss. Hence, we request bank to limit the drive size	
			IB with ILC or QLC	to 15.xx TB or lesser like production storage.	
	62	2	drives.		No Change, as per RFP.
	62	1		Different vendor have different technologies to meet the	
				performance and the contoller count per cluster. since bank has	
				already defined the number of controllers required per cluster,	
				Limiting to 4 cluster would be OEM specific, where a particular	
39			7. The proposed solution model should have at least 40+40 (PR+DR)	OEM has an advantage. There should not be any limit to the cluster	
			Storage Controllers or maximum 10% more at each site in scale out	count as long we are meeting the number of controller count	
1			architecture on day one which should be divided in not more than 4	nerformance and rack space criteria. We request Bank to remove	
1			storage clusters per	the number of cluster count or increase the cluster count to 6	
	ļ		site.	the number of cluster count of increase the cluster count to 0.	No Change, as per RFP.
1	65	28		Use of battery is a legacy way as the battery may be damaged with time.	
	1		28. Each controller operating in an active- active cluster environment	The technology has evolved over the period and now there are better	
	1		should have	ways to meet the data integrity, 72 Hours battery backup is OFM specific	
40	1		mirroring support for the system's write cache must be battery protected	request bank to change this clause with Must have either Cache battery	
1			with unwritten data in write cache protected for up to 72 hours in event	backup or better technology for fully automatic de- stage of cache to	No Change, as per RFP.
1			of power failure.	disks during power failure to prevent possible data loss	
<u> </u>			Data integrity must be retained in any case.		Invalid Query
1	65	30			
1				we request bank to clarify it each controller requires 4 ports of 10 Gbps /	
	1			2 ports of 25 Gops each for ISCSI and NFS, which is almost 80 – 10Gbps	
1	1			/40 – 25Gbps ports per cluster for Production Storage as per banks	
41	1			calculation . Since bank has already asked for almost 160 FC Ports of 32	
	1			Gbps per cluster these LAN ports requirement seems to be very high and	
	1		30. Each controller must have minimum 4 (2 primary and 2 secondary) x	favouring single vendor . Hence, we request bank to please share the	
1			10 Gbps fiber LAN ports or minimum 2 (1 primary and 1 secondary) 25	workload would be running on NFS and iSCSI or reduce the number of	
1			Gbps or higher fiber	ports recruitment to 4 ports of 10Gbps or 2 ports of 25 Gbps per HA pair.	
			LAN ports dedicated for serving iscsi and NFS.		No Change, as per RFP.

42	55	31	<ol> <li>Each controller must have minimum 4 (2 primary and 2 secondary) x</li> <li>Gbps fiber LAN ports or minimum 2 (1 primary and 1 secondary) 25</li> <li>Gbps or higher fiber LAN ports dedicated for serving data replication.</li> </ol>	We request bank to clarify if each controller requires 4 ports of 10 Gbps / 2 ports of 25 Gbps each for replication, which is almost 80 – 10Gbps /40 – 25Gbps ports per cluster for production stoarge only dedicated for replication, as per banks calculation. Where in bank is considering only 60% of capacity for replication. Hence ports requirement for replication seems to be very high and favouring single vendor . Hence, we request bank to please reduce the number of ports requirement to 4 ports of 10Gbps or 2 ports of 25 Gbps per HA pair.	No Change, as per RFP.
43	56	34	34. Scale out architecture should have at least 100 Gbps bandwidth per controller for backend interconnect switches / InfiniBand switches / pci-e based multilane connectivity between all HA pair. It is required for quick migration of datastore from One HA pair to another HA pair.	We request bank to clarify the need of 100Gbps bandwidth, which is OEM specific and helping particular vendor , Request bank either change and reduce the bandwidth to 50Gbps per controller as it is sufficient for data migration or please share the sizing for 100 Gbps bandwidth requirements per controller for backend connectivity.	No Change, as per RFP.
44	57	37	37. The storage should dynamically allocate Read Cache and Write Cache from the available cache to accommodate the I/O. The storage architecture should provide battery backup to the entire write cache in case of a disaster i.e. Data in cache should be protected against unexpected power failures for 72 hours of time.	Use of battery is a legacy way as the battery may be damaged with time. The technology has evolved over the period and now there are better ways to meet the data integrity. 72 Hours battery backup is OEM specific request bank to change this clause with Must have either Cache battery backup or better technology for fully automatic de- stage of cache to disks during power failure to prevent possible data loss	No Change, as per RFP. Invalid Query
45	61	4	4. Per controller cache must be minimum of 1 TB in case of 2 controller HA pair. If 4 controller HA pair system is proposed, then global cache must be minimum 2 TB.	4. Per controller cache must be minimum of 1 TB in case of 2 controller HA pair. If 4 controller HA pair system is proposed, then global-cache must be minimum 2 TB. Justification: Global cache is properitery specifications for some storage vendors. Request to remove it for better participation.	No Change, as per RFP.
46	61	7	7. The proposed solution model should have at least 80+80 (PR+DR) Storage Controllers or maximum 10% more at each site in scale out architecture on day one which should be divided in not more than 8 storage clusters per site.	7. The proposed solution model should have at least 80+80 (PR+DR) Storage Controllers or maximum 10% more at each site in scale out architecture on day one which should be divided in not more than- 8 storage clusters per site. Justification: Request to remove controller limitations as more controllers are needed to achive required performance.	No Change, as per RFP.
47	62	4	4. Per controller cache must be minimum of 512 GB in case of 2 controller HA pair. If 4 controller HA pair system is proposed, then global cache must be minimum 1 TB.	4. Per controller cache must be minimum of 512 GB in case of 2 controller HA pair. If 4 controller HA pair system is proposed, then global cache must be minimum 1 TB. Justification: Global cache is properitery specifications for some storage vendors. Request to remove it for better participation.	No Change, as per RFP.
48	62	7	7. The proposed solution model should have at least 40+40 (PR+DR) Storage Controllers or maximum 10% more at each site in scale out architecture on day one which should be divided in not more than 4 storage clusters per site.	7. The proposed solution model should have at least 40+40 (PR+DR) Storage Controllers <del>or maximum 10% more at each site in scale out</del> ar <del>chitecture on day one which should be divided in not more than 4 storage clusters per site.</del> Justification: Request to remove controller limitations as more controllers are needed to achive required performance.	No Change and DTD
49	63	4	4. The mean time between failures for HA components like Controller should be Five Years The mean time between failures for less critical components like Hard Dicks should be Two Years	Please remove this specification. It is properitery.	No Change, as per KFP.
50	63	11	11. Storage solution must include necessary management packs for integration with Aria Operations and should support integrations with Monitoring tools like Dynatrace, Appnomics etc.	Request to clarify the protocols support required from these applications.	No Change, as per RFP. API should be aavilble for integration
51	64	17	17. The proposed solution should accommodate in maximum 630U (maximum 18 racks size i.e. 35U X 18) at each site. Bidder should try to accommodate the solution in given number of racks, in case the solution mandatorily requires additional racks, upto 20% extra racks may per permitted.	Request to remove this as it is restrictive specifications for us to bid.	No Change, as per RFP.

	64	19	19. NVMe disk Raid should be formed with maximum 18 drives in	19. NVMe disk Raid should be formed with maximum 12 18-drives	
	01		Single RAID Group (16D+2P)	in Single RAID Group (16D+2P) (10D+2P)	
52				lustification:	
~ -				Request not to consider RAID Group of more than 10+2 for better	
				availability with high capacity drives	No Change as per REP
	65	28	28 Fach controller operating in an active- active cluster	28 Each controller operating in an active- active cluster	
	05	20	environment should have mirroring support for the system's write	environment should have mirroring support for the system's write	
			cache must be battery protected with upwritten data in write cache	cache / write IO must be battery protected with unwritten data in	
			protected for up to 72 hours in event of power failure	write cache protected for up to 72 hours in event of power failure	
53			Data integrity must be rotained in in all cases of power failure	or alternate mechanism to protect write data	
55			aither via cache battery er any other equivalent technology	Data integrity much be retained in in all cases of newer failure	
			either via cache battery of any other equivalent technology.	aither via eache bettery er anv ether equivalent technology	
				erner via cache battery of any other equivalent technology.	
					No Change as per PEP
	65	29	29 Each controller Storage solution must have minimum 8 (4	29 Each controller Storage solution must have minimum 8 4 (-4-2	
	05		primary and 4 Secondary) 32Gbps SAN EC ports dedicated for	primary and 4-2 Secondary) 32Gbps SAN EC ports dedicated for	
54			cerving SAN requests of	serving SAN requests of	
			Host Additionally, these ports should also support NV/ME over	Host Additionally, these ports should also support NV/ME over	
			fabric protocol	fabric protocol	No Change, as per BEP.
	65	30	For production storage (Category -1) LAN Port 1 :	For production storage (Category -1) LAN Port 1 :	
1			30. Each controller must have minimum 4 (2 primary and 2	30. Each controller must have minimum 4 (2 primary and 2	
			secondary) x 10 Gbps fiber LAN ports or minimum 2 (1 primary and	secondary) x 10 Gbps fiber LAN ports or minimum 2 (1 primary and	
			1 secondary) 25 Gbps or higher fiberI AN ports dedicated for	1 secondary) 25 Gbps or higher fiber AN norts dedicated for	
			conving isosi and NES	serving isoci and NES	
55				luctification:	
			For non-production storage only(Category 2): LAN Port 1 :	Request to remove iSCSI	
			30. Each controller must have minimum 2 (1 primary and 1	We can provide 4 ports of 25Gbps per controllers	
			socondary) x 10 Ghas fiber I AN ports or minimum 2 (1 primary and 1	2 ports can be used for NES and 2 for Romoto replication	
			1 secondary) 25 Gbps or higher fiber AN ports dedicated for	2 poits can be used for NFS and 2 for Remote replication.	
			1 Secondary) 25 Gbps of higher liberLAN ports dedicated for		No Change as ner REP
	67	37	37. The storage should dynamically allocate Read Cache and Write	37. The storage should dynamically allocate Read Cache and Write	
	-		Cache from the available cache to accommodate the I/O. The	Cache from the available cache to accommodate the I/O. The	
			storage architecture should provide battery backup to the entire	storage architecture should provide battery backup to the entire	
			write cache in case of a disaster i.e. Data in cache should be	write cache in case of a disaster i.e. Data in cache should be	
			protected against unexpected power failures for 72 hours of	protected against unexpected power failures for 72 hours of	
			time	time or alternate mechanism to protect write data	
			Data integrity must be retained in all cases of nower failure either	Data integrity must be retained in all cases of power failure either	
56			via cache battery or any other technology	via cache battery or any other technology	
			the caulte battery of any other teamology.	lustification:	
				With NVMe drives, data can be directly written to NVMe disks	
				Mirroring of cache is not needed	
				Cache Battery protection is not needed	
				caulie battery protection is not needed	
					No Change, as per RFP.
	67	38	38. Must have either Cache battery backup or better technology for	38. Must have either Cache battery backup or better technology for	No Change, as per RFP.
	67	38	<ol> <li>Must have either Cache battery backup or better technology for fully automatic de- stage of cache to disks during power failure to</li> </ol>	<ol> <li>Must have either Cache battery backup or better technology for fully automatic de- stage of cache to disks during power failure to</li> </ol>	No Change, as per RFP.
	67	38	38. Must have either Cache battery backup or better technology for fully automatic de- stage of cache to disks during power failure to prevent possible data loss	38. Must have either Cache battery backup or better technology for fully automatic de- stage of cache to disks during power failure to prevent possible data loss or alternate mechanism to protect write	No Change, as per RFP.
	67	38	38. Must have either Cache battery backup or better technology for fully automatic de- stage of cache to disks during power failure to prevent possible data loss	38. Must have either Cache battery backup or better technology for fully automatic de- stage of cache to disks during power failure to prevent possible data loss or alternate mechanism to protect write data.	No Change, as per RFP.
57	67	38	38. Must have either Cache battery backup or better technology for fully automatic de- stage of cache to disks during power failure to prevent possible data loss	38. Must have either Cache battery backup or better technology for fully automatic de- stage of cache to disks during power failure to prevent possible data loss or alternate mechanism to protect write data. Justification:	No Change, as per RFP.
57	67	38	38. Must have either Cache battery backup or better technology for fully automatic de- stage of cache to disks during power failure to prevent possible data loss	38. Must have either Cache battery backup or better technology for fully automatic de- stage of cache to disks during power failure to prevent possible data loss or alternate mechanism to protect write data. Justification: With NVMe drives, data can be directly written to NVMe disks.	No Change, as per RFP.
57	67	38	38. Must have either Cache battery backup or better technology for fully automatic de- stage of cache to disks during power failure to prevent possible data loss	38. Must have either Cache battery backup or better technology for fully automatic de- stage of cache to disks during power failure to prevent possible data loss or alternate mechanism to protect write data. Justification: With NVMe drives, data can be directly written to NVMe disks. Mirroring of cache is not needed.	No Change, as per RFP.
57	67	38	38. Must have either Cache battery backup or better technology for fully automatic de- stage of cache to disks during power failure to prevent possible data loss	38. Must have either Cache battery backup or better technology for fully automatic de- stage of cache to disks during power failure to prevent possible data loss or alternate mechanism to protect write data. Justification: With NVMe drives, data can be directly written to NVMe disks. Mirroring of cache is not needed. Cache Battery protection is not needed.	No Change, as per RFP.
57	67	38	<ol> <li>38. Must have either Cache battery backup or better technology for fully automatic de- stage of cache to disks during power failure to prevent possible data loss</li> <li>52. Array should be supplied with one global hot spare disk for</li> </ol>	38. Must have either Cache battery backup or better technology for fully automatic de- stage of cache to disks during power failure to prevent possible data loss or alternate mechanism to protect write data. Justification: With NVMe drives, data can be directly written to NVMe disks. Mirroring of cache is not needed. Cache Battery protection is not needed. 52. Array should be supplied with one global/distributed hot spare	No Change, as per RFP. No Change, as per RFP.
57	67 68	38	<ol> <li>38. Must have either Cache battery backup or better technology for fully automatic de- stage of cache to disks during power failure to prevent possible data loss</li> <li>52. Array should be supplied with one global hot spare disk for every 25 disks of same capacity and speed.</li> </ol>	<ul> <li>38. Must have either Cache battery backup or better technology for fully automatic de- stage of cache to disks during power failure to prevent possible data loss or alternate mechanism to protect write data.</li> <li>Justification:</li> <li>With NVMe drives, data can be directly written to NVMe disks.</li> <li>Mirroring of cache is not needed.</li> <li>Cache Battery protection is not needed.</li> <li>52. Array should be supplied with one global/distributed hot spare disk of every 24 25-disks of same capacity and speed.</li> </ul>	No Change, as per RFP. No Change, as per RFP.
57	67 68	38	<ul> <li>38. Must have either Cache battery backup or better technology for fully automatic de- stage of cache to disks during power failure to prevent possible data loss</li> <li>52. Array should be supplied with one global hot spare disk for every 25 disks of same capacity and speed.</li> </ul>	<ul> <li>38. Must have either Cache battery backup or better technology for fully automatic de- stage of cache to disks during power failure to prevent possible data loss or alternate mechanism to protect write data.</li> <li>Justification:</li> <li>With NVMe drives, data can be directly written to NVMe disks.</li> <li>Mirroring of cache is not needed.</li> <li>52. Array should be supplied with one global/distributed hot spare disk for every 24 25-disks of same capacity and speed.</li> <li>Justification:</li> </ul>	No Change, as per RFP. No Change, as per RFP.
57	67 68	38	<ul> <li>38. Must have either Cache battery backup or better technology for fully automatic de- stage of cache to disks during power failure to prevent possible data loss</li> <li>52. Array should be supplied with one global hot spare disk for every 25 disks of same capacity and speed.</li> </ul>	<ul> <li>38. Must have either Cache battery backup or better technology for fully automatic de- stage of cache to disks during power failure to prevent possible data loss or alternate mechanism to protect write data.</li> <li>Justification:</li> <li>With NVMe drives, data can be directly written to NVMe disks.</li> <li>Mirroring of cache is not needed.</li> <li>52. Array should be supplied with one global/distributed hot spare disk for every 24 25-disks of same capacity and speed.</li> <li>Justification:</li> <li>sparing can either be fixed or distributed. We use distributed</li> </ul>	No Change, as per RFP. No Change, as per RFP.

59	68	56	56. Storage must be able to provide application consistent snapshots of Virtual machine and Oracle RAC cluster hosted on Broadcom (VMware) cloud infrastructure	56. Storage must be able to provide application consistent snapshots of Virtual machine and Oracle RAC cluster hosted on Broadcom (VMware) cloud infrastructure either natively or with backup software integration.[ Justification: Request to allow application consistent snapshots with Backup software integration also.	No Change, as per RFP.
60	69	62	62. The Storage array must provide capability for thin and thick provisioning of LUNs along with automatic space reclamation technology	62. The Storage array must provide capability for thin and/or thick provisioning of LUNs along with automatic space reclamation technology Justification: Request to consider only Thin or Thin LUNs. Data compression and deduplication will require Thin LUNs.	No Change, as per RFP.
61	70	65	65. The proposed solution should have provision to protect and recover data in case of ransomware or malware attack for SAN & NAS workloads. Any license required should be provided on Day one for full capacity of system	65. The proposed solution should have provision to protect and recover data in case of ransomware or malware attack for SAN / NAS workloads. Any license required should be provided on Day one for full capacity of system Justification: Request to allow Ransomeware protection solution for either SAN or NAS solution.	No Change, as per RFP.
62	70	67	67. Storage should be able to take VM Snapshot backup/ VM Aware snapshots on VM hosted on Broadcom (VMware) Cloud infrastructure, any additional license required for this functionality must be provided by the OEM from day one.	67. Storage solution should be able to take VM Snapshot backup/ VM Aware snapshots on VM hosted on Broadcom (VMware) Cloud infrastructure, any additional license required for this functionality must be provided by the OEM from day one. Justification: Request to allow Vmware snapshot solution with Backup software interacting also	No Change as per REP
63	70	69	69. System must have capability to designate global hot spares that can automatically be used to replace a failed disk/drive	69. System must have capability to designate global/distributed hot spares that can automatically be used to replace a failed disk/drive	No Change, as per RFP.
64	72	84	84. Proposed storage solution must support storage-based replication, compression and industry leading replication and compression features, from day one	Request to remove compression as it will lead to performance impact on production storage.	No Change, as per RFP.
65	72	86	86. RPO for storage-based replication must be near Zero. Proposed storage should support synchronous replication with support for Near Zero RPO and RTO	86. RPO for storage-based replication must be near Zero or atleast 30 seconds. Proposed storage should support synchronous replication with support for Zero RPO and RTO Justification: Request to allow RPO of 30 seconds. It is as good as near zero.	No Change, as per RFP.
66	73	1	Total 10.5 Peta Bytes (PB) (5.25 PB at PR site and 5.25 PB at DR site) usable storage space, 80% NLSAS and 20% NVMe TLC drive based Object Storage for two sites.	Total 10.5 Peta Bytes (PB) (5.25 PB at PR site and 5.25 PB at DR site) usable storage space, 80% NLSAS and atleast 5 % <del>20%</del> NVMe TLC drive (for data/Caching) based Object Storage for two sites. Request to allow entire capacity with NLSAS tier as SSD for caching tier for better participation.	No Change, as per RFP.
67	74	15	The Object storage proposed should be integrable solution with scale out architecture. Entire solution should be from Single OEM and must provide single point of support for all levels of issues/escalations for Object Storage.	Request to remove this specification for better participation.	No Change, as per RFP.
68	75	27	Object storage should support Compression functionality to optimize the storage capacity usage	Request to remove this specification for better participation.	No Change, as per RFP.
69	74	23	User portal login should provide multi-factor authentication.	Request to change as , User portal login should provide multi-factor authentication or any other equivalent methods.	No Change, as per RFP.
70	75	26	Tiering should be able to set based on Object Size or policy on age of data.	Request to remove this specification for better participation.	No Change, as per RFP.
71	88	4	Delivery of total hardware and software should be completed within 8 weeks.	Delivery of total hardware and software should be completed within 12-8 weeks. Request to allow 12 weeks for Hardware and Software delivery.	No Change, as per RFP.

72	57	3	The Bidder must have an average turnover of minimum Rs. 250 Crore during last 03 (three) financial year(s) i.e. FY2021-22, FY2022-23 and FY2023-24.	The Bidder must have an average turnover of minimum Rs. 250 Crore during last 03 (three) financial year(s) from the business of IT / ITeS i.e. FY2021-22, FY2022-23 and FY2023-24.	No Change, as per RFP.
73	57	7	Client references and contact details (email/ landline/ mobile) of customers for whom the Bidder has executed similar projects in India. (Start and End Date of the Project to be mentioned) in the past (At least 2 client references of total 5 Peta Bytes are required)	Client references and contact details(email/ landline/ mobile) of customers for whom the Bidder has executed similar projects in India. (Start and End Date of the Project to be mentioned) in the past (At least 2 Projects with client references of total 5 Peta Bytes are required). <u>The</u> <u>Client should Be Govt / BFSI / PSU</u> .	No Change, as per RFP.
74	57	8	At least 2 Client references along with contact details (email/ landline/ mobile) with install base of minimum 10 Peta Bytes storage total in India of the storage OEM, whose products being proposed as part of this RFP.	Request to remove point of specific proposed OEM from experience clause and change to Bidder should have experience relevant to solution proposed or asked by the bank.	No Change, as per RFP.
75	91	14	<ul> <li>50% + taxes of the storage solution (hardware, software and warranty) will be released on delivery of hardware.</li> <li>Remaining 50% + taxes of the storage solution (hardware, software and warranty) will be released on verification of bill of material, storage capacity and performance as given in the RFP by Bank/CDAC/Third party and commissioning of storage solution as well as submission of PBG.</li> <li>No payment will be made on part delivery of ordered hardware.</li> <li>The product should be under warranty for 5(Five) years. Post warranty period, AMC will be for 2 (two) years. AMC charges will be paid on a quarterly basis in arrears only.</li> <li>Manpower charges will be paid on actuals on monthly basis in arrears.</li> </ul>	Request to change payment terms as below:- 1) 70% + Taxes of the storage solution (hardware, software and warranty) will be released on delivery of hardware. 2) 30% + Taxes taxes of the storage solution (hardware, software and warranty) will be released on verification of bill of material, storage capacity and performance as given in the RFP by Bank/CDAC/Third party and commissioning of storage solution as well as submission of PBG.	No Change, as per RFP.
76	88	4	All milestones/dates are from the date of purchase order • Delivery of total hardware and software should be completed within 8 weeks. • Bidder to arrange planning and documentation within 10 weeks. • Installation and commissioning should be completed within 10 weeks of purchase order. Delivery locations will be in Navi Mumbai and Hyderabad. • Minimum 6 Manpower resources on daily basis to be onboarded within 10 weeks of PO. Remaining manpower can be onboarded within 14 weeks.	All milestones/dates are from the date of purchase order • Delivery of total hardware and software should be completed within 8 weeks. • Bidder to arrange planning and documentation within 12 weeks. • Installation and commissioning should be completed within 12 weeks of purchase order. Delivery locations will be in Navi Mumbai and Hyderabad. • Minimum 6 Manpower resources on daily basis to be onboarded within 12 uzeks of PO. Remaining manpower can be onboarded within 14 weeks.	No Change, as per RFP.
77	63/167		Scale out architecture should have at least 100 Gbps bandwidth per controller for backend interconnect switches / InfiniBand switches / pci-e based multilane connectivity between all HA pair. It is required for quick migration of datastore from One HA pair to another HA pair.For Non Production Storage(Category 2) Connectivity between HA Pairs: 34. Scale out architecture should have at least 50 Gbps bandwidth per controller for backend interconnect switches / InfiniBand switches / pci-e based multilane connectivity between all HA pair. It is required for quick migration of datastore from One HA pair to another HA pair	<ol> <li>Is the bank planning to connect 8x 25 G ports per HA pair for controller interconnect? 2. Volume or Datastore movement from one HA pair to another in Modern Architecture is not part of Management or back end switch, it use modern FC and/or ethernet peering between HA pairs for low latency data movement, limiting it to only ethernet and a legacy way of cluster interconnect restricts wider participation, please allow 128G FC connection &amp; 64G FC for non production ( in addition to 100G/50G ethernet Jper HA pair as an option for vol move feature.</li> </ol>	No Change, as per RFP.
78	72/167		The Storage nodes in the object storage must be provided with redundant physical controllers. Minimum 4 numbers of 25Gbps LAN Ports on each node should be provided. Each node should be a separate appliance or physical servers.	Kindly allow OEM to size the bandwidth at the system/cluster level to deliver the asked throughput/Performance,instead of limiting to per node port/s.Pure Storgae solution is a modern architecture offering 800G bandwidth at the chassis level with built in Load balancers.	No Change, as per RFP.
79	72/167		Erasure coded data must be encoded efficiently, regardless of object size. Object Storage shall allow any object to be accessed from any node at any site with most recent version of data always available	the RFP ask-"Object Storage shall allow any object to be accessed from any node at any site with most recent version of data always available" points to inter site/global erasure coding that is not applicable here as the deploymet is for less than 3 sites- here there are only 2Sites in RFp ask- which points to replication, Kinldy clarify.	No Change, as per RFP.

				1 Kindly allow nomenclature as -Nodes/blade/controllers 2 Please	
				allow OEM to provide, the required handwidth at the	
				and w OEIvi to provide the required bandwidth at the	
				system/chassis(800G) level to deliver the asked	
80			Proposed Object based storage should be fully distributed, symmetrical	throughput/Performance, instead of limiting to per node port/s.	
			and scale-out architecture. Minimum 28 nodes per site should be	3. Minimum 28 node limit( is a limiting factor with modern architecture	
			provided for user data access with minimum 4 numbers of 25Gbps LAN	and pointing to a legacy architecture) should be relaxed as upto 28	
			Ports on each node. Each node should be a separate appliance or	Nodes or higher to allow latest generation future proof storage design	
	73/167		physical servers.	and architecture/s.	No Change, as per RFP.
04	19	11. DEADLINE FOR SUBMISSION OF BIDS	i. Bids must be submitted online on GeM portal by the date and time	Query: We are not able to locate the GeM number for this bid in the	
81			mentioned in the "Schedule of Events" of this RFP.	document. We request Bank to provide the GeM number.	Please refer Corrigendum No. 1
	32	29. WARRANTY AND ANNUAL MAINTENANCE CONTRACT:	vii. In the event of system break down or failures at any stage, protection	Clarification Sought: Here against the clause "(d) Backup of system	
			available, which would include the following, shall be specified.	software/ Configuration" we understand that bank wants bidder to take	
			avanable, innen itolaa melaac die fonormig, shan be speemea.	backup of the configuration. Not production data	
			(d) Packup of system coftware/ Configuration	And hank will provide secure storage and teal to store this configuration	
82			(u) Backup of system software/ configuration	And bank will provide secure storage and tool to store this conliguration	
				data.	
				Kindly confirm or provide inputs.	
					No Change, as per RFP.
	57	Appendix-B	6.	Query: We request bank to clarify that,	
		Bidder's Eligibility Criteria	The bidder should either be class I or class II local supplier or non-local	a bid with non-local supplier having	
83			supplier as per the guidelines on Public Procurement (preference to make	local content is less than 20% declared in Appendix G will be considered	
			in India ) order 2017 and subsequent amendments thereof	as qualified bid.	
			,		No Change as per BEP
	60	A: Production Storage (Category 1):	(SL along with OEM need to perform the test onsite after delivery with	Pequest: For running the performance test onsite servers and SAN	
	00	A. Floddellon Storage (Category 1).	(Shalong with OEW need to perform the test onsite after derivery with	with the serviced We request head to are ide such as in the	
		D. Non-analystics Starson (Catagory 2):	enterprise level to test tool as part of acceptance of the solution).	Switches will be required, we request bank to provide such equipment	
84		B. Non-production Storage (Category 2):		for the performance test purpose.	
	62				
		Performance		We shall provide the details and configuration of such equipment	
		IOPS, Throughput and Latency		required.	No Change, as per RFP.
	61	A: Production Storage (Category 1):	<ol><li>The proposed solution model should have at least 80+80 (PR+DR)</li></ol>	Clarification Sought: The clause 80+80 (PR+DR) Storage Controllers => Is	
0.5		4	Storage Controllers or maximum 10% more at each site in scale out	80 controllers a typo ?	
85		Number of Racks	architecture on day one which should be divided in not more than 8		
		Controllers	storage clusters per site.	Kindly confirm and provide inputs	No Change, as per RFP.
	61	A: Production Storage (Category 1):	7. The proposed solution model should have at least 80+80 (PR+DR)	<b>Query:</b> We request bank to elaborate the clause "maximum 10% more"	
		Λ	Storage Controllers or maximum 10% more at each site in scale out	······	
06		T Number of Basks	architecture on day one which chould be divided in not more than 8	Deep it imply scalability of maximum 10% in addition to 8 + 8 controllers	
80		Controllers	atomeetare on day one which should be divided in not more than a	boes to imply scalability of maximum 10% in addition to 8 + 8 controllers	
		Controllers	storage clusters per site.	supplied.	No. Channes and DED
					No Change, as per RFP.
	62	B. Non-production Storage (Category 2):	7. The proposed solution model should have at least 40+40 (PR+DR)	Clarification Sought: The clause 40+40 (PR+DR) Storage Controllers => Is	
87		4	Storage Controllers or maximum 10% more at each site in scale out	40 controllers a typo ?	
3,		Number of Racks	architecture on day one which should be divided in not more than 4		
		Controllers	storage clusters per site.	Kindly confirm and provide inputs	No Change, as per RFP.
	62	B. Non-production Storage (Category 2):	7. The proposed solution model should have at least 40+40 (PR+DR)	Query: We request bank to elaborate the clause "maximum 10% more"	
		4	Storage Controllers or maximum 10% more at each site in scale out		
88		Number of Racks	architecture on day one which should be divided in not more than 4	Does it imply scalability of maximum 10% in addition to 4 + 4 controllers	
		Controllers	storage clusters per site.	supplied.	
					No Change, as per REP.
<u> </u>	62	For both the categories of storage mentioned above i.e. Category 1 and	2	Query: We request the bank will use own Key Management Software if	
00	02	Cotogon 2, the hidder must comply with below considerations	L Courity	required	
89		category 2, the bidder must comply with below specifications	Security	required	No Channe and DED
<u> </u>			Encryption		NO Change, as per RFP.
		E. Manpower Requirement	1.	Clarification Sought: We understand this implies total four resources.	
90			Four L3 Level : Resources on daily basis 24x7x365	And not Four resources per shift.	No Change, as per RFP.
50			2.		
			Four L2 Level : Resources from bidder on daily basis 24x7x365	Kindly confirm or provide inputs.	The requirement is for daily basis 24x7x365
		F. Rack Enclosure		Query: We request the bank to clarify if the racks can be supplied in	
91				dismantled state and assembled at site.	No Change, as per RFP.
<u> </u>		Appendix-E	The bidder has to rope-in expert team from OEM for designing planning	Clarification Sought: We understand this implies the migration will be	
		Scope of Work and Payment Schedule	and documenting the storage implementation (it should include	executed by hidder, only the migration plan will be prepared and owned	
02		Description of Sonvisor	migration plan from ovisting sature optimal configurations and formation	by the OEM	
92		Description of Services	inigration plan nom existing setup, optimal configurations, performance	by the OEW.	
			oriented design, SAN switch zoning and configuration) in consultation		
			with bank	Kindly confirm or provide inputs.	No Change, as per RFP.

	Appendix-F	The hidder has to rope in expert team from OEM for designing planning	Query: We request bank to provide details related to migration such as	
	Scope of Work and Barmont Schodula	and documenting the storage implementation (it should include	quantum of data to be migrated, existing bardware and connectivity	
		and documenting the storage implementation (it should include,	detaile detaile of the basis second to	
	Description of services	inigration plan nom existing setup, optimal configurations, performance		
00		oriented design, SAN switch zoning and configuration) in consultation		
93		with bank		
		Bidder has to get the complete initial implementation, commissioning		
		including management, monitoring and integration with existing solution		
		done through OEM engineers.		No Change, as per RFP.
	Appendix-E	Bidder has to arrange support and consultancy from OEM and Bidder's	Change Request: We request bank to quantify mandays instead so we	
94	Scope of Work and Payment Schedule Description of Services	SME (Subject Matter Expert) team whenever demanded by Bank	can take adequate services from the OEM.	
				No Change, as per RFP.
	Appendix-E	Bidder has to arrange support and consultancy from OEM and Bidder's	Query : We request bank to clarify if this will be onsite or remote activity	No Change, as per RFP.
95	Scope of Work and Payment Schedule Description of Services	SME (Subject Matter Expert) team whenever demanded by Bank		
				It can be remote or onsite as per bank's requirement.
	Appendix-E	Bank may procure any quantity from minimum 40% to 125% of the	Change Request: We request bank to consider price increase due to \$ /	
	Scope of Work and Payment	mentioned Bill of Materials(BOM) in this RFP within three years.	INR fluctuation after 6 months of first PO.	
	Description of Deliverables	Accordingly Purchase orders may be issued in phases.		
96		· · · · · · · · · · · · · · · · · · ·	Predicting/Hedging \$ price for 3 years of period is not possible. Hence	
		The rates discovered will be valid for three years from the date of	this request	
		Purchase order	ins request.	No Change as per REP
	Appendix-E	All EC cables. Ethernet cables & any other accessories required to	Ouerv: We understand for SAN connectivity, either the new SAN switches	······································
1	Scope of Work and Payment	establish connectivity between Storage, SAN Switch and respective bosts	will be used or bank will provide SAN switch with active EC ports ±	
	Description of Deliverables	LAN switches to be provisioned by bidder. EC Patch papel work need to	transceivers	
07		he done by Bidder	For LAN connectivity. Pank will provide LAN switches with required active	
97		be dolle by Bludel	For LAN connectivity, Bark will provide LAN switches with required active	
			ports + transceivers.	
				No. Change and DCD
	A second set	All CO seletes Files of selete O second s	Kindly confirm or clarify	No Change, as per KFP.
	Appendix-E	All FC cables, Ethernet cables & any other accessories required to	Clarification Sought: To arrive at possible length of cables, we	No. Change and DCD
	Scope of Work and Payment	establish connectivity between Storage, SAN Switch and respective hosts,	understand the Switches will be in the same rack or next 2/3 racks.	No Change, as per RFP.
98	Description of Deliverables	LAN switches to be provisioned by bidder. FC Patch panel work need to		
		be done by Bidder	Kindly confirm or provide inputs.	The distance between two racks will not exceed 100 meters. Bidder has
				to provide rack, san switch connectivity cables, within rack connectivity
				cables within rack and across racks via patch panel (installed by bidder)
	Appendix-E	All FC cables, Ethernet cables & any other accessories required to	Clarification Sought: If the cables are to be laid across racks, we	
	Scope of Work and Payment	establish connectivity between Storage, SAN Switch and respective hosts,	understand, overhead trays or trays below the flooring will be available	
99	Description of Deliverables	LAN switches to be provisioned by bidder. FC Patch panel work need to	in the bank's data centre.	No Change, as per RFP.
		be done by Bidder		
			Kindly confirm or provide inputs.	Overhead trays are available in DC
	Appendix-E	Installation and commissioning should be completed within 10 weeks of	Clarification Sought: We understand, the timeline of 10 weeks does not	
100	Scope of Work and Payment	purchase order.	include migration.	No Change, as per RFP.
100	Term of the Project			
			Kindly confirm or provide inputs.	Migration activity is not included in 10 weeks timeline
	 Appendix-E		Clarification Sought: We understand, the activities mentioned under this	
	Scope of Work and Payment		clause will be performed by the L2 and L3 resources deployed onsite. And	
101	Performance Requirements		not additional resources deputation.	
			Kindly confirm or provide inputs.	No Change, as per RFP.
	Appendix-E	As mentioned in the Appendix - C	Query: As per the Warranty & AMC, Call to Resolution is provided as 6	
1	Scope of Work and Payment	Any issue faced by the Bank w.r.t. the entire Storage solution (all	(six) hours.	
	Performance Requirements	Hardware & Software components included) has to be		
1		resolved/workaround provided in 2 (two) hours except where there is a	Please confirm, which value is to be considered.	
		hardware failure for which a resolution time of A (four) hours is		
		accentable by the bank, provided it does not have major impact on the		
		application availability		
102		opprovision dyandomicy.		
1		(d) Vender chall oncure that faults and failures intimated by the Park as		
	Annadiu	(u) venuor shan ensure that faults and failures intimated by the Bank as		
1	Appendix-L	above are set right within 4 (lour) hours of being informed of the same.		
1	Other Terms and Penalties	in any case the Equipment should be made workable and available not		
		later than the next working day of the Bank		
				NO Change, as per KEP.

		Annandiu E	Ridder need to encode for OEM manufacturing unit visit, each of which	Clarification County We understand size off will be previde often	
		Appendix-E	Bidder need to arrange for OEM manufacturing unit visit, cost of which	Clarification Sought: we understand, sign-off will be provide after	
		Scope of Work and Payment	will be borne by the Bank. Bidder need to arrange for training and	installation & commissioning. Training is not part of sign-off.	
102		13	certification from OEM for 5 Bank officials.		
103		Training		Kindly confirm or provide inputs.	
		5		.,	
					No Change as per PEP
		Connector		Clarification County To sup the starses configuration and meritarian	No change, as per Kir.
		Generic		Clarification Sought: To run the storage configuration and monitoring	
				tool, infra will be required.	
				We understand, bank will provide such infra, o.s., database. We will	
104				provide the pre-requisites	
				Kindly confirm or provide inputs	
				kindly common provide inputs.	No Change as nor BED
				Clasification Country Wassedante	No change, as per NF.
		ANNEXURE-A		clarification sought: we understand,	
		Other Terms and Penalties		wherever the terms in the main section of the RFP are different from	
				Annexure-A,	
				all the terms and penalties specified in the main section of the RFP shall	
				prevail.	
105				for instance	
105				As nor main castion warranty = maximum 2 hours ross and time with C	
1				have Calles Based that allocated	
				hours Call to Resolution including	
1				part replacement	
				As per Annexure-A: (d) Vendor shall ensure that faults and failures	
				intimated by the Bank as above are set right within 4 hours of being	
				informed of the same	Please refer Corrigendum No. 1
					No Change, as per RFP.
			In the event of Bank engaging the services of CDAC/any other party for		
106			inspection and testing of the supplied material, the hidder should ensure		The specifications mentioned in the REP will be verified by C-DAC/Third
			inspection and testing of the supplied material, the bluder should ensure	Discussion of the transformation	The specifications mentioned in the KFP will be verned by C-DAC/ mind
	84	1 Description of Services	the presence of UEIVI engineer.	Please share the testing criteria	party.
			The bidder has to rope-in expert team		
			from OEM for designing, planning and documenting the storage		
107			implementation (it should include, migration plan from existing setup,		
			optimal configurations, performance oriented design, SAN switch zoning	Please share the existing setup from which migration to be done so that	
	84	1 Description of Services	and configuration) in consultation with bank.	we can identify the tool required for migration	No Change, as per REP.
			Bidder has to get the complete initial implementation commissioning	······································	
109			including management, monitoring and integration with existing solution	please share the existing setup details which need to be integrated with	
100	04	1 Description of Convince	dense through OEM engineers	please share the existing setup details which need to be integrated with	No Change as and DED
	84	1 Description of Services	done through OEM engineers.	storage system	No Change, as per KFP.
			Bidder has to ensure a neat, labelled and high standard implementation.		
109			All works related to implementation like cable laying, tagging, lifting,		No Change, as per RFP.
			shifting and all relevant activities as per data centre norms are in scope	Please confirm it is a one time activity or need to be done later as well if	
1	84	1 Description of Services	of bidder during the entire contract period.	yes please confirm the occurrence of the activity	The activity to be done as and when required.
				Please confirm it is a one time activity or need to be done later as well if	
				ves please confirm the occurrence of the activity, as hidder is not aware	No Change as per REP
110			In case if movement of racks (new/evicting), cabling ato to be data	of existing rack's network connectivity, requesting to remove the existing	
		1 Description of Convince	Didder has to take the manageriality of and to and implementation.	in existing rack's network connectivity, requesting to remove the existing	The estivity to be done as and when required
$\vdash$	84	1 Description of Services	bluder has to take the responsibility of end to-end implementation.	word from the clause.	The activity to be done as and when required.
111			Bidder should arrange yearly review from OEM's SME on efficiency,		
	85	1 Description of Services	operations, utilization and areas of improvement.	Please share the testing criteria and parameter	No Change, as per RFP.
112			Flash Wear warranty: Flash read/write wear out should be covered under	Please let us know the Flashwear performace acceptable values of the	
112	85	1 Description of Services	warranty.	parameters.	No Change, as per RFP.
					No Change, as per RFP.
113					
	OF	1 Description of Services	Bank will procure minimum 40% of the quantity mentioned in first year	please share the timelines for procurement of remaining 60% quantity	The remaining bardware may be produced with payt 2 years
	65	1 Description of Services	bank win procure minimum 40% of the quantity mentioned in first year.	prease share the timennes for procurement of remaining oo% quantity	Ne Change as per DED
					NO Change, as per KEP.
114					
1			Eight onsite manpower resources on all days of the week for	please confirm eight resources required everyday, also confirm the shift	Yes, eight resources are required on daily basis on all days of the
	85	2 Description of Deliverables	management, maintenance and support on 24x7x365 basis.	timings and resources required in per shift	contract.
			All FC cables, Ethernet cables & any other accessories required to		
			establish connectivity between Storage. SAN Switch and respective hosts.	FC Patch panel also need to be given by bidder and cabling will be within	No Change, as per RFP
115			I AN switches to be provisioned by hidder. EC Patch papel work need to	rack or between different racks. What about LAN switches it will be	U
	00	2 Description of Deliverables	he done by Ridder	provided by banks or bidder baye to provide	I AN Switches will be provided by back
1	86	z pescription of peliverables	be dolle by bludel.	provided by barris of bluder have to provide	LAN SWITCHES WILDE PROVIDED BY DAILK

					No Change as per RFP.
116			Bidder has to arrange for evaluation of the proposed storage setup		
110			through OEM SME on yearly basis and submit a whitepaper providing		Performance benchmarking will be on IOPS, Throughput and Latency for
	86	2 Description of Deliverables	performance benchmarking, optimization measures etc.	What will be the performance benchmarking criteria and parameter	the bank's workload.
					No Change as per RFP.
117			New storage solution should be integrated with existing cloud setup	Please share the details of existing cloud setup, is their any requirement	
	86	3 Third-Party Components	without any additional cost to the Bank.	for any tool for integration wit existing cloud	The existing setup is VMware Cloud Foundation (VCF) based.
					No Change as per RFP.
118			Bidder has to arrange for migration of storage from existing setup to new	Please share the details of existing setup from where migration is to be	
	87	6 Integration / Migration Requirements with existing systems	hardware as guided by the Bank.	done so that we can plan for the tools and skills required for migration	The existing setup is VMware Cloud Foundation (VCF) based.
110		2 Description of Polivorables	Bidder must arrange for delivery, installation, power on, necessary	Clarification is required : Arranange for "power on". Whether bloder has	No Change as per RFP,
119	05	2 Description of Deriverables	cabling, etc.	to provide OPS with power cabling in case of power connection or Bank	Didder seeds to see ide DDU
	65		clause ng#85	will provide that?	Blader needs to provide PDO
			"Fight onsite mannower resources on all days of the week for		
			management maintenance and support on 24x7x365 basis "		
			and		
120	86	2 Description of Deliverables	Pg#87	Please clarify	
			"Minimum 6 Mannower resources on daily basis to be onboarded within		No Change, as per REP.
			10 weeks of PO. Remaining manpower can be onboarded within 14		
			weeks."		Minimum resources to be supplied within specific timelines.
			Deal and the black of the second state	We are ok provide higher or lower daily resources. How ever we resquest	
121	86	2 Description of Deliverables	Bank may place nigher or lower quantities	you to provide the upper & lower limit of the number of additional	
			or manpower order as per requirement.	people by +/- percentage.	No Change, as per RFP.
				Kindly confirm whether only bidder's support engineer will get the	
				admin contgrol for the entire storage Mgmt? As it is mnetioned that 1lac	
122			If any production LUN/volume went offline any point of time due to any	per incident penalty will be imposed if LUN issue occurred by Human	
122			Human error /monitoring Negligence/Software bug	error	
	107	For performance and support: pt 5		We request you to remove this penalty clause.	No Change, as per RFP.
		PERIOD OF BID VALIDITY AND VALIDITY OF PRICE QUOTED IN REVERSE	ii. Price quoted by the Bidder in Reverse auction shall remain valid for	Request bank to Modify the clause " Price quoted by the Bidder in	
123	19	AUCTION (RA):	duration of 36 calendar months from the date of Purchase order.	Reverse auction shall remain valid for duration of 12 calendar months	
		. ,		from the date of Purchase order."	No Change, as per RFP.
			1. Total 18 Peta Bytes (PB) (9 PB at PR site	Request Bank to change this clause to usable PiB instead of PB as it will	
			and 9 PB at DR site) usable storage space,	provide the exact usable space as seen by the application. PB is less than	No Change of the DED
124	60 & 61	1. Usable Caapcity	NVIVIE drive based storage array for two sites.	PiB in terms of actual usable space consumed by the application.	No Change, as per KFP.
			osable storage space means storage calculated	9PiB (Actual Usable ) = 10.133 PB	Please refer Definitions Clause on Page no. 10 wherein it is clarified that 1
			deduplication (compression and excluding botchare	9PB (Usable) = 7.993 PiB (Actual usable space available)	(Opo) Pota bytes (PR) = 1024 Tera Pytes (TR) 1 TR = 1024 GR and so op
			15. Storage should provide dashboard with peformance data with per		(One) Fela bytes (FB) = 1024 Fela bytes (FB). 1 FB = 1024 GB and 30 On
125	64	3. Management, Monitoring	second sampling basis. Canability should be available for providing	Request the bank to change this clause to " provide dashboard with 1-10	
125	• ·	and Thirdparty product integrations	dashboard access to end users if required	second performance data sampling"	No Change as per REP
1			Proposed Object based storage should be fully distributed, symmetrical		
1	75	20	and scale-out architecture. Minimum 28 nodes per site should be	Request bank to reduce the node count to minimum 24 nodes & allow	
126	/5	28	provided for	ULIVI'S to quote more nodes to meet the requirements. As the requested	
			user data access with minimum 4 numbers of 25Gbps LAN Ports on each	node count of 28 is increasing the usable capacity of the RFP by 30%.	
			noue, cach noue should be a separate appliance or physical servers.		No Change, as per RFP.
			6 The rack should be equipped with integrated sensors to monitor	Request bank to remove the integrated sensors for monitoring	
		F Back Enclosure	temperature humidity airflow and pressure These sensors chould be	temperature humidity, airflow & pressure from the clause, as no OEM	
127	83	2. Environmental Monitoring	capable of real-time reporting to ensure optimal environmental	nor Third party rack provide these functionalty as standard offerings.	
			conditions and enable proactive management of server health	These are additional solution components that needs to be installed for	
				such montoring requirements.	No Change, as per RFP.
1				Request bank to remove the environmental monitoring & Real time	
		F. Rack Enclosure	7. The environmental monitoring system should be able to send real-time	alerting functionality in racks, as no OEM nor Third party rack provide	
128	83	2. Environmental Monitoring	alerts for critical conditions, such as temperature spikes or airflow issues,	these functionalty as standard offerings. These are additional solution	
		-	to minimize downtime and prevent equipment damage	components that needs to be installed for such montoring requirements.	No Change of the DED
					IND Change, as per KEP.
120	62	F. Rack Enclosure	8. PDUs should provide real-time monitoring of power usage at the outlet	OEM rack PDU's do not provide these functionality . Request bank to	
129	03	2.Inelligent Power Disribution Units (PDUs)	level, enabling precise tracking of power consumption per device.	drop this clause or allow OEM to quote third party PDU's.	No Change, as ner REP
					no chunge, as per ni r.
		F Back Enclosure	9. PDUs should support remote switching, allowing for the remote	OFM rack PDU's do not provide these functionality. Request back to	
130	83	2 Inelligent Power Disribution Linits (PDLIs)	shutdown or reboot of servers and devices, providing flexibility in	dron this clause	
			managing power in case of emergencies or maintenance.		No Change, as per RFP.

131	83	F. Rack Enclosure 2.Inelligent Power Disribution Units (PDUs)	<ol> <li>The PDUs should include power metering capabilities to provide detailed usage data, enabling better energy management and cost control.</li> </ol>	OEM rack PDU's do not provide these functionality . Request bank to drop this clause.	No Change, as per RFP.
132	80 & 81	E. Manpower Requirement	Ability to work collaboratively in a team environment, collaboration skills with other IT teams such as Vmware support team, Application teams, Cisco SAN Switch support, system administrators and network engineers	<ul> <li>i) Request bank to clarify if the onsite resources need to manage the new SAN Switches as part of the Scope of work for resident engineer resources requested in RFP.</li> <li>ii) Are the RE's required to manage the existing SAN switches and Storage array's.</li> </ul>	No Change, as per RFP.
133	87	Onsite Resources	<ul> <li>Eight onsite manpower resources on all days of the week for management, maintenance and support on 24x7x365 basis.</li> </ul>	Request Bank to specify whether the onsite resources deployed need to manage the existing storge and the SAN switches inventory in Meghdoot.	No Change, as per RFP. Eight manpower resources are required on daily basis.
134	88	Delivery	•Delivery of total hardware and software should be completed within 8 weeks.	Request bank to modify the delivery upto 10 weeks	No Change, as per RFP.
135	88	Installation and commissioning	<ul> <li>Bidder to arrange planning and documentation within 10 weeks.</li> <li>Installation and commissioning should be completed within 10 weeks of purchase order. Delivery locations will be in Navi Mumbai and Hyderabad</li> </ul>	Request bank to modify the Installation and commissioning should be completed within 12 weeks of purchase order.	No Change, as per RFP.
136	89	Appendix-E	Scope of Work and Payment Schedule (Point 4) - Term of the Project - Minimum 6 Manpower resources on daily basis to be onboarded within 10 weeks of PO. Remaining manpower can be onboarded within 14 weeks.	Bank has requested total 4Nos-L3 & 4 Nos-L2 Enginners i.e Total 8 Nos engineers, Kinldy clarify do bank required this 8 nos engineers in roaster or bank require 8 Nos of engineers on daily basis (24*7) as per shifts.	No Change, as per RFP. Eight manpower resources are required on daily basis.
137	94	Appendix-F	Indicative Price Bid	We request Bank to add addtiaonal table for Installation/ Commissioning Charges. As this is missing in this indicative commercial.	Please refer Corrigendum No. 1
138		Capacity	Total 10.5 Peta Bytes (PB) (5.25 PB at PR site and 5.25 PB at DR site) usable storage space, 80% NLSAS and 20% NVMe TLC drive based Object Storage for two sites.	Request to update this to reflect : NL-SAS/SATA and QLC/TLC	Please refer Corrigendum No. 1
139		Throughput	Sustained Read Throughput: 30 GB/s (Gigabytes per second) or higher per site for object size of 4 MB. Sustained Write Throughput: 20 GB/s or higher per site for object size of 4 MB.	Higher object size is advantageous. Please clarify if any specific reason for the 4MB object size based on workload .	No Change, as per RFP.
140		Latency (Response Time)	Latency for Small Objects (<1MB): < 10 milliseconds (ms) for both read and write operations per site. Latency for Large Objects (>100MB): < 100 ms for read operations.	Defining latency depends on workload, underlying infra. These values are steep for object storage solutions for archive and tertiary workloads	No Change, as per RFP.
141		IOPS (Input/Output Operations Per Second)	Small Object IOPS (e.g., 4KB): 5,00,000 IOPS or higher for mixed read/write workloads. Large Object IOPS (e.g., 1MB): 50,000 IOPS or higher for sequential read/write workloads.	Request to consider Transactions Per Second (TPS) as is a better measure for object storage. IOPS is an incorrect parameter for measuring performance in object environment	No Change, as per RFP.
142		Disk Size	Each data drives should have a maximum capacity of 16.xx TB 7.2k RPM NL-SAS HDD and maximum of 16.xxTB capacity drive in SSD.	Please allow Bidder to quote any capacity size drive. Denser Capacity drives are available, this can help reduce the footprint of the solution	No Change, as per RFP.
143			Erasure coding algorithm provided must support data protection against 3 or more simultaneous nodes / disks failures across the storage nodes.	28 Nodes with 3 disks/node failure and 6 9's availability is mathematically inaccurate. Request to be updated to safeguard data as an entity and not individual disks.	No Change, as per RFP.
144			Erasure coded data must be encoded efficiently, regardless of object size. Object Storage shall allow any object to be accessed from any node at any site with most recent version of data always available.	Strong consistency methodology of data access	No Change, as per RFP.
145			User portal login should provide multi-factor authentication.	Request To be enabled via the SAML authentication provider	No Change, as per RFP.
146			Object storage must be supplied with ability to tier objects from local disk to external cheaper storage tier like S3 compliant storage, Public Cloud.	Please clarify reson for tiering be required .The object storage is being used for archive workload, which is the last tier in data movement for long term retention. Movement of data/copy to cloud can be considered here.	No Change, as per RFP.
147			Proposed Object based storage should be fully distributed, symmetrical and scale-out architecture. Minimum 28 nodes per site should be provided for user data access with minimum 4 numbers of 25Gbps LAN Ports on each node. Each node should be a separate appliance or physical servers.	Please give clarity on specifically this mentioned number. If the other parameters are met, and can be accomplished with less number of nodes?	No Change, as per RFP.
148			Five years Warranty and 2 years AMC - 24x7 comprehensive onsite support from OEM with maximum 2 hours response time with 6 hours Call to Resolution including part replacement, access to OEM support portal, OEM technical support on 24X7X365 basis. Highest Level of Proactive and Reactive support covering Half yearly Firmware analysis, and Proactive Health analysis.	Request to consider 6 hours response time	No Change, as per RFP.

1			Rs. 3.00.00.000/-		
			(Rs Three crore only)- Performance Security in form of BG should be valid for		No Change, as per RFP.
149			(is three clote only) renormalize occarity in form of be should be valid for	3 Cr PBG for 5 years to cover the warranty period. For AMC period take 1 cr	
	5	1	Contract	PBG prior to releasing of 3 or phg	
	5		Client references and contact details (email/ landline/ mobile) of customers for		
			whom the Bidder has executed similar projects in India.		No Change, as per RFP.
150			(Start and End Date of the Project to be mentioned) in the past (At least 2 client	Request you to please consider PO copies of total 3 peta bytes instend of total	
	57		references of total 5 Peta Bytes are required)	5 peta bytes.	
	57				No Change as per REP
151					
151			Delivery 8 Weeks	Dellarge 42 Weeks	
	88		Delivery - 8 weeks	Delivery - 12 weeks	No. Characterization DED
					No Change, as per RFP.
152					
	88		Delivery and Installation - 10 Weeks	Please consider Delivery and Installation -16weeks	
			(hardware, software and warranty) will be released on commissioning		
			vorification of hill of material by Pank/CDAC/Third party and submissioning,		
			DDC The remaining COV L taxes of the Convers (herdware software and		
153			uppersent i) will be released on commissioning varification of hill of material by	Please consider 80% against Delivery and 20% against installation on	No Change as per BEP
			warranty) will be released on commissioning, vernication of bill of material by	Please consider 80% against Delivery and 20% against installation , on	
			Bank/CDAC/Third party and submission of PBG. No payment will be made on	CDAC or Third parts	
	91	14	part delivery of ordered hardware.	CDAC OF THIRD PARTY .	
1 1					No change, as per KFP.
154				Please consider AMC Payment as monthly instead quarterly or quarterly in	
	89	14	AMC Payment will be Quarterly	advance.	
					No Change, as per RFP.
155					
1 1	89	14	Manpower charges will be paid on actuals on monthly basis in arrears.	Request you to please change it to monthly payment.	
		-	Comprehensive annual maintenance cost for 19 PD Production storage for both		No Change, as per RFP.
156			comprehensive annual maintenance cost for 18 PB Production storage for both		
150	03	15 Indiantive price	Sites for two years, (This cost should be in the range of 8% to 12 % p.a. of the	Dequest you to consider the range 10% to 15% in a left the product cost	
-	92	15- Indicative price		Reduce the validity of the price discovered through the REP for a period of 1	
				vear.	
				Request you to incorporate the dollar escalation clause as follows. If the	
157				averbange rate with respect to the dollar (JISD) increases by more than 2 %	
157				from the date of numbers order then CPI will now outro to the tune of the	No Change, as per RFP.
			The prices discovered through this RFP will be valid for a minimum period of	nom the date of purchase order then SBI will pay extra to the tune of the	
	87		three years from the date of initial purchase order.	percentage increase beyond 3%. The dollar rate will be retched from the RBI	
				The dem maximum give seven year for end of support / End of life for the	
				offied product if you are buying after 1 year or 2 year from the intial purchase	
158			The software & hardware quoted and supplied by the bidder in this RFP should	order then the 7 years support may not be practial and available. So request	No Change, as per RFP.
			not be declared as End of Support / Life (EOS/EOL) by the OEM within the 7	you to decrese the support period accordigaly to remain within max 7 years	
	68		years of Purchase order / contract period	from inital purchase order.	
			i The Bank, by written notice of not less than 90 (ninety) days, may terminate		
			the Contract in whole or in part for its convenience, provided same shall not be		
			invoked by the Bank before completion of half of the total Contract period		
159			(including the partice period)	This is not a convice contract rather it is a capey contract wherein all the	
			(including the notice period).	This is not a service contract rather it is a capex contract wherein an the	
			11 IN THA WANT AT TARMIN'STIAN AT THA VARAAMANT TAT THA <b>W</b> SNY <i>F</i> CANVANIANCA	aquipment are delivered immediately on order and warranty/ AMC support is	No Change, as per REP.
			II. In the event of termination of the Agreement for the Bank's convenience,	equipment are delivered immediately on order and warranty/ AMC support is provided Due to this this clause is not applicable and so request you to drap this	No Change, as per RFP.
	47		<ol> <li>In the event of termination of the Agreement for the Bank's convenience, Service Provider shall be entitled to receive payment for the Services rendered (delivered) up to the effective date of termination.</li> </ol>	equipment are delivered immediately on order and warranty/ AMC support is provided.Due to this this clause is not applicable and so request you to drop this clause	No Change, as per RFP.
1	47	4	II. In the event of termination of the Agreement for the bank's convenience, Service Provider shall be entitled to receive payment for the Services rendered (delivered) up to the effective date of termination.	equipment are delivered immediately on order and warranty/ AMC support is provided.Due to this this clause is not applicable and so request you to drop this clause .	No Change, as per RFP.
100	47	4:	II. In the event of termination of the Agreement for the Bark's convenience, Service Provider shall be entitled to receive payment for the Services rendered (delivered) up to the effective date of termination.	equipment are delivered immediately on order and warranty/ AMC support is provided.Due to this this clause is not applicable and so request you to drop this clause.	No Change, as per RFP. No Change, as per RFP.
160	47	4	II. In the event of retrimination of the Agreement for the Bank's convenience, Service Provider shall be entitled to receive payment for the Services rendered (delivered) up to the effective date of termination. Service Provider shall be willing to transfer skills to relevant personnel of the	equipment are delivered immediately on order and warranty/ AMC support is provided.Due to this this clause is not applicable and so request you to drop this clause . Need clarity at Bank premises or Bidder defined location , Training will be given	No Change, as per RFP. No Change, as per RFP.
160	47 30	4: III	II. In the event of retrimination of the Agreement for the Bank's convenience, Service Provider shall be entitled to receive payment for the Services rendered (delivered) up to the effective date of termination. Service Provider shall be willing to transfer skills to relevant personnel of the Bank, by means of training and documentation	equipment are delivered immediately on order and warranty/ AMC support is provided.Due to this this clause is not applicable and so request you to drop this clause . Need clarity at Bank premises or Bidder defined location , Training will be given by OEM or bidder	No Change, as per RFP.
160	47 30	4: iii	II. In the event of retrimination of the Agreement for the Bank's convenience, Service Provider shall be entitled to receive payment for the Services rendered (delivered) up to the effective date of termination. Service Provider shall be willing to transfer skills to relevant personnel of the Bank, by means of training and documentation . Service Provider shall provide and implement patches/ upgrades/ updates for	equipment are delivered immediately on order and warranty/ AMC support is provided.Due to this this clause is not applicable and so request you to drop this clause . Need clarity at Bank premises or Bidder defined location , Training will be given by OEM or bidder	No Change, as per RFP. No Change, as per RFP. No Change, as per RFP.
160	47 30	4: iii	II. In the event of rermination of the Agreement for the Bank's convenience, Service Provider shall be entitled to receive payment for the Services rendered (delivered) up to the effective date of termination. Service Provider shall be willing to transfer skills to relevant personnel of the Bank, by means of training and documentation . Service Provider shall provide and implement patches/ upgrades/ updates for Products (software/ firmware/ OS) as and when released by Service Provider/	equipment are delivered immediately on order and warranty/ AMC support is provided.Due to this this clause is not applicable and so request you to drop this clause . Need clarity at Bank premises or Bidder defined location , Training will be given by OEM or bidder	No Change, as per RFP. No Change, as per RFP. No Change, as per RFP.
160 161	47 30	4: iii	II. In the event of rermination of the Agreement for the Bank's convenience, Service Provider shall be entitled to receive payment for the Services rendered (delivered) up to the effective date of termination. Service Provider shall be willing to transfer skills to relevant personnel of the Bank, by means of training and documentation . Service Provider shall provide and implement patches/ upgrades/ updates for Products (software/ firmware/ OS) as and when released by Service Provider Hourder Joens Agreement and the service Provider Service Pro	equipment are delivered immediately on order and warranty/ AMC support is provided.Due to this this clause is not applicable and so request you to drop this clause . Need clarity at Bank premises or Bidder defined location , Training will be given by OEM or bidder OS supply and installation is not part of the scope so request you to please	No Change, as per RFP. No Change, as per RFP. No Change, as per RFP. OS Supply and
160 161	47 30 30	4: III	II. In the event of rermination of the Agreement for the Bank's convenience, Service Provider shall be entitled to receive payment for the Services rendered (delivered) up to the effective date of termination. Service Provider shall be willing to transfer skills to relevant personnel of the Bank, by means of training and documentation . Service Provider shall provide and implement patches/ upgrades/ updates for Products (software/ firmware/ OS) as and when released by Service Provider/ OEM free of cost. Service Provider should bring to notice of the Bank all releases/ version changes	equipment are delivered immediately on order and warranty/ AMC support is provided.Due to this this clause is not applicable and so request you to drop this clause . Need clarity at Bank premises or Bidder defined location , Training will be given by OEM or bidder OS supply and installation is not part of the scope so request you to please confirm.	No Change, as per RFP. No Change, as per RFP. No Change, as per RFP. OS Supply and
160	47 30 30	4: iii	II. In the event of termination of the Agreement for the Bank's convenience, Service Provider shall be entitled to receive payment for the Services rendered (delivered) up to the effective date of termination. Service Provider shall be willing to transfer skills to relevant personnel of the Bank, by means of training and documentation .Service Provider shall provide and implement patches/ upgrades/ updates for Products (software/ firmware/ OS) as and when released by Service Provider/ OEM free of cost. Service Provider should bring to notice of the Bank all releases/ version changes Integration / Migration	equipment are delivered immediately on order and warranty/ AMC support is provided.Due to this this clause is not applicable and so request you to drop this clause . Need clarity at Bank premises or Bidder defined location , Training will be given by OEM or bidder OS supply and installation is not part of the scope so request you to please confirm.	No Change, as per RFP. No Change, as per RFP. No Change, as per RFP. OS Supply and
160	47 30 30	4: iii iii	II. In the event of remination of the Agreement for the Bank's convenience, Service Provider shall be entitled to receive payment for the Services rendered (delivered) up to the effective date of termination. Service Provider shall be willing to transfer skills to relevant personnel of the Bank, by means of training and documentation . Service Provider shall provide and implement patches/ upgrades/ updates for Products (software/ firmware/ OS) as and when released by Service Provider/ OEM free of cost. Service Provider should bring to notice of the Bank all releases/ version changes Integration / Migration Requirements with existing systems Yes, New hardware should be integrated	equipment are delivered immediately on order and warranty/ AMC support is provided.Due to this this clause is not applicable and so request you to drop this clause . Need clarity at Bank premises or Bidder defined location , Training will be given by OEM or bidder OS supply and installation is not part of the scope so request you to please confirm. Any migration of data will be taken care by bank and is not part of the current	No Change, as per RFP. No Change, as per RFP. No Change, as per RFP. OS Supply and No Change, as per RFP.
160 161 162	47 30 30	4: iii	II. In the event of retimination of the Agreement for the Bank's convenience, Service Provider shall be entitled to receive payment for the Services rendered (delivered) up to the effective date of termination. Service Provider shall be willing to transfer skills to relevant personnel of the Bank, by means of training and documentation . Service Provider shall provide and implement patches/ upgrades/ updates for Products (software/ firmware/ OS) as and when released by Service Provider/ OEM free of cost. Service Provider should bring to notice of the Bank all releases/ version changes Integration / Migration Requirements with existing systems Yes, New hardware should be integrated with old platform without any additional cost to the Bank.	equipment are delivered immediately on order and warranty/ AMC support is provided.Due to this this clause is not applicable and so request you to drop this clause . Need clarity at Bank premises or Bidder defined location , Training will be given by OEM or bidder OS supply and installation is not part of the scope so request you to please confirm. Any migration of data will be taken care by bank and is not part of the current RFP scope.For the purpose of integration if any upgradation and firmware is	No Change, as per RFP. No Change, as per RFP. OS Supply and No Change, as per RFP.
160 161 162	30 30 30	4: iii iii	II. In the event of rermination of the Agreement for the Bank's convenience, Service Provider shall be entitled to receive payment for the Services rendered (delivered) up to the effective date of termination. Service Provider shall be willing to transfer skills to relevant personnel of the Bank, by means of training and documentation . Service Provider shall provide and implement patches/ upgrades/ updates for Products (software/ firmware/ OS) as and when released by Service Provider/ OEM free of cost. Service Provider should bring to notice of the Bank all releases/ version changes Integration / Migration Requirements with existing systems Yes, New hardware should be integrated with old platform without any additional cost to the Bank.	equipment are delivered immediately on order and warranty/ AMC support is provided.Due to this this clause is not applicable and so request you to drop this clause . Need clarity at Bank premises or Bidder defined location , Training will be given by OEM or bidder OS supply and installation is not part of the scope so request you to please confirm. Any migration of data will be taken care by bank and is not part of the current RFP scope.For the purpose of integration if any upgradation and firmware is required bank has to take care for the same.	No Change, as per RFP. No Change, as per RFP. OS Supply and No Change, as per RFP.
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160 161 162 163	47 30 30 89 124	4 iii iii 6-	In the event of remination of the Agreement for the Bank's convenience, Service Provider shall be entitled to receive payment for the Services rendered (delivered) up to the effective date of termination. Service Provider shall be willing to transfer skills to relevant personnel of the Bank, by means of training and documentation . Service Provider shall provide and implement patches/ upgrades/ updates for Products (software/ firmware/ OS) as and when released by Service Provider/ OEM free of cost. Service Provider should bring to notice of the Bank all releases/ version changes Integration / Migration Requirements with existing systems Yes, New hardware should be integrated with old platform without any additional cost to the Bank. Service Provider shall report the incidents, including cyber incidents and those resulting in disruption of service and data loss/ leakage immediately but not later than one hour of detection.	equipment are delivered immediately on order and warranty/ AMC support is provided.Due to this this clause is not applicable and so request you to drop this clause . Reed clarity at Bank premises or Bidder defined location , Training will be given by OEM or bidder OS supply and installation is not part of the scope so request you to please confirm. Any migration of data will be taken care by bank and is not part of the current RFP scope. For the purpose of integration if any upgradation and firmware is required bank has to take care for the same. This is not related to the storage we are supplying hardware. Please clarify the same.	No Change, as per RFP. No Change, as per RFP. OS Supply and No Change, as per RFP. No Change, as per RFP.
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160 161 162 163	47 30 30 89 124	4	II. In the event of remination of the Agreement for the Bank's convenience, Service Provider shall be entitled to receive payment for the Services rendered (delivered) up to the effective date of termination. Service Provider shall be willing to transfer skills to relevant personnel of the Bank, by means of training and documentation Service Provider shall provide and implement patches/ upgrades/ updates for Products (software/ firmware/ OS) as and when released by Service Provider/ OEM free of cost. Service Provider should bring to notice of the Bank all releases/ version changes Integration / Migration Requirements with existing systems Yes, New hardware should be integrated with old platform without any additional cost to the Bank. Service Provider shall report the incidents, including cyber incidents and those resulting in disruption of service and data loss/ leakage immediately but not later than one hour of detection. Future additions of Hardware / Software: (a) The Bank would have the right to:i. Shift supplied systems to an alternative	equipment are delivered immediately on order and warranty/ AMC support is provided.Due to this this clause is not applicable and so request you to drop this clause . Need clarity at Bank premises or Bidder defined location , Training will be given by OEM or bidder OS supply and installation is not part of the scope so request you to please confirm. Any migration of data will be taken care by bank and is not part of the current RFP scope. For the purpose of integration if any upgradation and firmware is required bank has to take care for the same. This is not related to the storage we are supplying hardware. Please clarify the same.	No Change, as per RFP. No Change, as per RFP. OS Supply and No Change, as per RFP. No Change, as per RFP.
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160 161 162 163 164	47 30 30 89 124	4	II. In the event of remination of the Agreement for the Bank's convenience, Service Provider shall be entitled to receive payment for the Services rendered (delivered) up to the effective date of termination. Service Provider shall be willing to transfer skills to relevant personnel of the Bank, by means of training and documentation . Service Provider shall provide and implement patches/ upgrades/ updates for Products (software/ firmware/ OS) as and when released by Service Provider / OEM free of cost. Service Provider should bring to notice of the Bank all releases/ version changes Integration / Migration Requirements with existing systems Yes, New hardware should be integrated with old platform without any additional cost to the Bank. Service Provider shall report the incidents, including cyber incidents and those resulting in disruption of service and data loss/ leakage immediately but not later than one hour of detection. Future additions of Hardware / Software: (a) The Bank would have the right toi. Shift supplied systems to an alternative site of its choice. II. Disconnect / connect / substitute peripherals such as printers, etc. or devices or any equipment / software acquired from another vendor.	equipment are delivered immediately on order and warranty/ AMC support is provided.Due to this this clause is not applicable and so request you to drop this clause . Need clarity at Bank premises or Bidder defined location , Training will be given by OEM or bidder OS supply and installation is not part of the scope so request you to please confirm. Any migration of data will be taken care by bank and is not part of the current RFP scope. For the purpose of integration if any upgradation and firmware is required bank has to take care for the same. This is not related to the storage we are supplying hardware. Please clarify the same. a) Shifting will be taken care of by bidder mutually agreed rate. b) This is not relevant, request you to please drop this clause .	No Change, as per RFP. No Change, as per RFP. OS Supply and No Change, as per RFP. No Change, as per RFP.
160 161 162 163 164	47 30 30 89 124	4	II. In the event of retimination of the Agreement of the Bank's convenience, Service Provider shall be entitled to receive payment for the Services rendered (delivered) up to the effective date of termination. Service Provider shall be willing to transfer skills to relevant personnel of the Bank, by means of training and documentation . Service Provider shall provide and implement patches/ upgrades/ updates for Products (software/ firmware/ OS) as and when released by Service Provider/ OEM free of cost. Service Provider should bring to notice of the Bank all releases/ version changes Integration / Migration Requirements with existing systems Yes, New hardware should be integrated with old platform without any additional cost to the Bank. Service Provider shall report the incidents, including cyber incidents and those resulting in disruption of service and data loss/ leakage immediately but not later than one hour of detection. Future additions of Hardware / Software: (a) The Bank would have the right to:i. Shift supplied systems to an alternative site of its choice. II. Disconnect / connect / substitute peripherals such as printers, etc. or devices or any equipment / software equired from another vendor.	equipment are delivered immediately on order and warranty/ AMC support is provided.Due to this this clause is not applicable and so request you to drop this clause . Need clarity at Bank premises or Bidder defined location , Training will be given by OEM or bidder OS supply and installation is not part of the scope so request you to please confirm. Any migration of data will be taken care by bank and is not part of the current RFP scope.For the purpose of integration if any upgradation and firmware is required bank has to take care for the same. This is not related to the storage we are supplying hardware. Please clarify the same.	No Change, as per RFP. No Change, as per RFP. OS Supply and No Change, as per RFP. No Change, as per RFP.

					No Change as per PEP
165					
105	107	1	Populty for broach in Pc Rc 1 Lac	Request you to consider Rs EOK instead of Rs 1 Las	
	107	1	reliaity for breach in KS KS. I Eac,	Request you to consider its sok instead of its 1 Eac.	No Change as per PEP
166					
100	107	2	Penalty for breach in Rs - Rs 5 Lac	Request you to consider Rs 1 lac instead of Rs 5 Lac	
	107	2			No Change, as per REP
167			Ps. 10 Lac and bank may take appropriate decision from invoking BPG or		
107	107	3	termination of contract etc	Request you to consider Rs 5 lac instead of Rs 10 Lac	
	107	, ,			No Change as per REP
168				If a resource is not available request you to consider. 50% deduction for the	···· • •·········
100	108	4	If a resource is not available- 150% deduction for the resource on pro-rata basis.	resource on pro-rata basis.	
	100				No Change as per REP
169			If any production LUN/volume went offline any point of time due to any Human	If any production LUN/volume went offline any point of time due to any Human	
	108	5	error /monitoring Negligence/Software bug Rs. 1 Lakhs per incident	error /monitoring Negligence/Software bug Rs. 50 Lakhs per incident.	
			If both controller of HA pair went offline at any point of time due to any Human		No Change, as per RFP.
170			error		
	108	6	/monitoring Negligence/Software bug	Please drop the clause as alredy SLA penalty is there.	
	64	Compatibili	18. The proposed storage solution must be	Need more details of Existing Vmware software& Backup softwarre	
1		ty	fully compatible with Commvault Backup	version details with Storage space	
			and Broadcom (VMware) softwares as		
			well as other industry leading backup,		
171			virtualization and cloud software's during		
			the entire contract period. The bidder will		
			be completely responsible for end-to-end		No Change, as per RFP.
			integration of the proposed solution with		
			the existing setup		
	67	Functional	41. The proposed storage solution must be	Need more details of Existing Vmware software version details	
		Requirement	fully compatible with Broadcom		
			(VMware) Virtualization portfolio and		
172			Commvault Stack. The bidder and OEM		
			will be responsible for end-to-end		No Change, as per RFP.
			integration of the proposed solution with		
			the existing VMware setup.		
	89	Scope of Work and Payment Schedule	Integration / Migration:	Need more details of existing storage volume level details also need more	
			Requirements with existing	details of higher size of VMDK with application and DB details.also need	
1/3			systems: Bidder has to arrange for migration of storage	more details of existing Block, file & Object storage data and its size	No Change, as per RFP.
			from existing setup to new hardware as guided		
<u> </u>	74	Operating	Dy the Balik.	poor more details of Vmware Stack, communult coftware warries and its	
	/1	System and	integrate with existing Cloud incorporating	need more details of vinware stack , commvault software version and its	
		Clustering	Broadcom (VMware) technology stack	poncy and aremeetidie of existing setup	
		support	Commyault Backup Solution and existing		
		Sabborc	storage environment. End to end		
174			integration will be responsibility of bidder		
			and OFM. In case of noncompliance to any		
			of the integration with the existing system.		No Change, as per RFP.
			the bidder will replace/return the solution		
			withou		
	72	Storage Based	86. RPO for storage-based replication must	for achiving RTO and RPO between DC to DR required bandwidth will be	
175		Replication	be near Zero. Proposed storage should	provided by bank	No Change, as per RFP.
1/5			support synchronous replication with		
			support for Near Zero RPO and RTO		
	121	RESPONSIBILITIES OF SERVICE PROVIDER	Service Provider shall report the incidents, including cyber incidents and	need more details of wxisting Cyber security product and policy for new	
			those	infra integration	
176			resulting in disruption of service and data loss/ leakage immediately but		No Change, as per RFP.
			not later than		
1			one hour of detection.		

	144		If Bank desires to shift the Equipment to a new site and install it thereof	Who will be provided the Insurance of equipement at the time of shifting	
177			the Vendor shall be informed of the same. The Bank shall bear the reasonable mutually agreed charges for such shifting and Vendor shall provide necessary arrangement to the Bank in doing so. The terms of this RFP, after such shifting to the alternate site and reinstallation thereof would continue to apply and binding on Vendor.		No Change, as per RFP.
178	57	Eligibility Cireteria	The Bidder must have an average turnover of minimum Rs. 250 Crore during last 03 (three) financial year(s) i.e. FY2021-22, FY2022-23 and FY2023-24.	The Bidder must have an average turnover of minimum Rs. 100 Crore during last 03 (three) financial year(s) i.e. FY2021-22, FY2022-23 and FY2023-24.	No Change, as per RFP.
179	57	Eligibility Cireteria	Client references and contact details (email/landline/mobile) of customers for whom the Bidder has executed similar projects in India. (Start and End Date of the Project to be mentioned) in the past (At least 2 client references of total 5 Peta Bytes are required)	Client references and contact details (email/ landline/ mobile) of customers for whom the Bidder has executed similar projects in India. (Start and End Date of the Project to be mentioned) in the past (At least 2 client references of total 1 Peta Bytes are required)	No Change, as per RFP.
180	57	Eligibility Cireteria	At least 2 Client references along with contact details (email/ landline/ mobile) with install base of minimum 10 Peta Bytes storage total in India of the storage OEM, whose products being proposed as part of this RFP.	At least 2 Client references along with contact details (email/ landline/ mobile) with install base of minimum 2 Peta Bytes storage total in India of the storage OEM, whose products being proposed as part of this RFP.	No Change, as per RFP.
181	62	Cache size	Per controller cache must be minimum of 1 TB in case of 2 controller HA pair. If 4 controller HA pair system is proposed, then global cache must be minimum 2 TB	It is requested that the Technical Committee modify the clause to specify a minimum of 512GB cache per array/node/HA pair, as each Storage OEM has its own architecture, and the amount of cache does not impact the performance provided by the storage. Limiting the cache to a specific amount would restrict participation from leading storage DEMs and potentially favor certain OEMs. Not be able to participate with 2TB, please amend this with cache must be minimum ITB	No Change, as per RFP.
182			50% + taxes of the storage solution (hardware, software and warranty) will be released on delivery of hardware. Remaining 50% + taxes of the storage solution (hardware, software and warranty) will be released on verification of bill of material, storage capacity and performance as given in the RFP by Bank/CDAC/Third party and commissioning of storage solution as well as submission of PBG. Manpower	70% + Total taxes of the storage solution (hardware, software and warranty) will be released on delivery of hardware. Remaining 20% of the storage solution (hardware, software and warranty) will be released on verification of bill of material, storage capacity and performance as given in the RFP by Bank/CDAC/Third party and commissioning of storage solution. Remaining 10% against submission of PBG. Manpower	No Change, as per RFP.
183	91	12	i charges Will be paid on actuals on monthly basis in arrears.	charges will be paid on actuals on monthly basis in advance.	No Change, as per RFP.
184	46	46	existing Service Provider is breach of this obligation, they shall be liable for paying a penalty of 10% of the total Project Cost on demand to the Bank, which may be settled from the payment of invoices or Bank Guarantee for the contracted period or by invocation of Bank Guarantee.	Change needed - 10% penalty has to be reduce to 5%.	No Change, as per RFP.
185	61	7, Number of Racks , Controller s	7. The proposed solution model should have at least 80+80 (PR+DR) Storage Controllers or maximum 10% more at each site in scale out architecture on day one which should be divided in not more than 8 storage clusters per site.	Different vendor have different technologies to meet the performance and the contoller count per cluster. since bank has already defined the number of controllers required per cluster, Limiting to 8 cluster would be OEM specific. where a particular OEM has an advantage. There should not be any limit to the cluster count as long we are meeting the number of controller count, performance and rack space criteria. We request Bank to remove the number of cluster count or increase the cluster count to 12.	No Change, as per RFP.
186	62	5, Performance, Disk Size	5. Maximum size of each NVMe storage drive should be less than 30.xx TB with TLC or QLC drives.	Since Bank is asking for huge capacity, we feel using 30TB drives will lead to longer re-build time and in case of multiple drive failure there are chances of RAID groups going to de-grade mode which might leads to higher latency, impact in the performance and chance of data loss. Hence, we request bank to limit the drive size to 15.xx TB or lesser like production storage.	No Change, as per RFP.

187	7	7. The proposed solution model should have at least 40+40 (PR+DR)	Different vendor have different technologies to meet the performance and the contoller count per cluster. since bank has already defined the number of controllers required per cluster, Limiting to 4 cluster would be OEM specific. where a particular	
	S a 62 7,Number of Racks,Controller s s	Storage Controllers or maximum 10% more at each site in scale out architecture on day one which should be divided in not more than 4 storage clusters per site.	DEM has an advantage. I here should not be any limit to the cluster count as long we are meeting the number of controller count, performance and rack space criteria. We request Bank to remove the number of cluster count or increase the cluster count to 6.	No Change, as per RFP.
188	1 64 17,Number of Racks,	17. The proposed solution should accommodate in maximum 630U (maximum 18 racks size i.e. 35U X 18) at each site.	We request bank to clarify if 630U limited to production storage and non production only at each site or total of all sites	No Change, as per RFP. For each Production and Non Production storage, 630U is the maximum rack size. Bidder should try to accommodate the solution in given number of racks, in case the solution mandatorily requires additional racks, upto 20% extra racks may per permitted.
189	2 s n v o 65 28,Architecture & Processing power,Data Integrity C	28. Each controller operating in an active- active cluster environment should have mirroring support for the system's write cache must be battery protected with unwritten data in write cache protected for up to 72 hours in event of power failure. Data integrity must be retained in any case.	Use of battery is a legacy way as the battery may be damaged with time. The technology has evolved over the period and now there are better ways to meet the data integrity. 72 Hours battery backup is OEM specific request bank to change this clause with Must have either Cache battery backup or better technology for fully automatic de- stage of cache to disks during power failure to prevent possible data loss	No Change, as per RFP. Invalid Query
190	2 a 65 29, FC Ports	29. Each controller Storage solution must have minimum 8 (4 primary and 4 Secondary) 32Gbps SAN FC ports dedicated for serving SAN requests of Host. Additionally, these ports should also support NVME over fabric protocol	We request bank to clarify if each controller with primary 4 and secondary 4 refer to the HA pair or single controller.	No Change, as per RFP.
191	3 1 65 30,LAN Port 1	30. Each controller must have minimum 4 (2 primary and 2 secondary) x 10 Gbps fiber LAN ports or minimum 2 (1 primary and 1 secondary) 25 Gbps or higher fiber LAN ports dedicated for serving iscsi and NFS.	We request bank to clarify if each controller requires 4 ports of 10 Gbps / 2 ports of 25 Gbps each for iSCSI and NFS, which is almost 80 – 10Gbps /40 – 25Gbps ports per cluster for Production Storage as per banks calculation . Since bank has already asked for almost 160 FC Ports of 32 Gbps per cluster these LAN ports requirement seems to be very high and favouring single vendor . Hence, we request bank to please share the workload would be running on NFS and iSCSI or reduce the number of ports recruitment to 4 ports of 10Gbps or 2 ports of 25 Gbps per HA pair.	No Change, as per RFP.
192	3 1 65 31,LAN Port 2	31. Each controller must have minimum 4 (2 primary and 2 secondary) x 10 Gbps fiber LAN ports or minimum 2 (1 primary and 1 secondary) 25 Gbps or higher fiber LAN ports dedicated for serving data replication.	We request bank to clarify if each controller requires 4 ports of 10 Gbps / 2 ports of 25 Gbps each for replication, which is almost 80 – 10Gbps /40 – 2SGbps ports per cluster for production stoarge only dedicated for replication, as per banks calculation. Where in bank is considering only 60% of capacity for replication. Hence ports requirement for replication seems to be very high and favouring single vendor. Hence, we request bank to please reduce the number of ports requirement to 4 ports of 10Gbps or 2 ports of 25 Gbps per HA pair.	No Change, as per RFP.
193	3 c b b 66 34,Connectivit y between HA Pairs fi	34. Scale out architecture should have at least 100 Gbps bandwidth per controller for backend interconnect switches / InfiniBand switches / pci-e based multilane connectivity between all HA pair. It is required for quick migration of datastore from One HA pair to another HA pair.	We request bank to clarify the need of 100Gbps bandwidth, which is OEM specific and helping particular vendor , Request bank either change and reduce the bandwidth to 50Gbps per controller as it is sufficient for data migration or please share the sizing for 100 Gbps bandwidth requirements per controller for backend connectivity.	No Change, as per RFP.
194	3 fi a c 67 37,Cache Requirements, Data Integrity u	37. The storage should dynamically allocate Read Cache and Write Cache from the available cache to accommodate the I/O. The storage architecture should provide battery backup to the entire write cache in case of a disaster i.e. Data in cache should be protected against unexpected power failures for 72 hours of time.	Use of battery is a legacy way as the battery may be damaged with time. The technology has evolved over the period and now there are better ways to meet the data integrity. 72 Hours battery backup is OEM specific request bank to change this clause with Must have either Cache battery backup or better technology for fully automatic de- stage of cache to disks during power failure to prevent possible data loss	No Change, as per RFP.

		50% + taxes of the storage solution (hardware, software and warranty)		
		will be released on delivery of hardware.		
		<ul> <li>Remaining 50% + taxes of the storage solution (hardware, software and</li> </ul>		
195		warranty) will be released on verification of bill of material, storage		
155		capacity and performance as given in the RFP by Bank/CDAC/Third party		
		and commissioning of storage solution as well as submission of PBG.		
		<ul> <li>No payment will be made on part delivery of ordered hardware.</li> </ul>		
		<ul> <li>The product should be under warranty for 5(Five) years. Post warranty</li> </ul>		
		period, AMC will be for 2 (two) years. AMC charges will be paid on a		No Change, as per RFP.
		quarterly basis in arrears only.		
91 14,1	Payment Scheudle	<ul> <li>Manpower charges will be paid on actuals on monthly basis in arrears.</li> </ul>	80% on delivery, 10% on PBG & 10% on Sign off.	
100				No Change, as per KFP.
190			We have by request you to exempt from MII	
			we here by request you to exempt from Mil.	No Change as not RED
107		Maximum size of each NV/Me storage drive should be less than 18 xx TR	Kindly allow the Drive size as per the recommended best practice sizing	No change, as per KFP.
60/167		with TLC (Triple Level Cell) drives only	of the Storage OEM to meet the performance and availability acks	
00/10/		The storage hill of material should be from a single OEM i.e. all the	Is the bank looking at only Primary Production. Storage and Non-	No Change as per REP
198		storages should be from the same OFM. Bidder cannot quote storage	Production storage from same OEM? Can Object storage be guided from	
60/167		from multiple OEMs	a different brand/QEM?	
00,107				
			Kindly allow larger size QLC drives to be quoted, as per latest industry	No Change, as per RFP.
199		5. Maximum size of each NVMe storage drive should be less than 30.xx	trends QLC drives are available in 75TB configurations. while having all	5 . · · F
61/167		TB with TLC or QLC drives.	requirements of availability and resiliency catered to.	
			······································	
		Storage solution per site should handle minimum 80 lacs front end IOPS		
		(8 KB block size, 60% read & 40% write) with maximum 2 ms Server side		
		(initiator) latency with 70% cache hit while having capacity optimization		
200		features including snapshot, Replication, deduplication, compression and		
		encryption enabled. (SI along with OEM need to perform the test onsite		No Change, as per RFP.
		after delivery with enterprise level IO test tool as part of acceptance of		
61/167		the solution).	Pl allow Latency allowance of 2-4 ms for the QLC NVMe option at DR site.	
		7. The Proposed solution should provide self-encrypting drives or Data		
201		Encryption at Rest that are AES256, FIPS 140 - 2 and other industry		No Change, as per RFP.
201		leading encryption algorithm or standards compliant. The proposed	SED are limiting, Is bank ok with System level data encryption; PL allow	
62/167		encryption should not impact performance.	Storage level encryption solution.	
			Kindly allow the Drive raid group size as per the recommended best	No Change, as per RFP.
202		19. NVMe disk Raid should be formed with maximum 18 drives in Single	practise sizing of the Storage OEM to meet the perfromance and	
63/167		RAID Group (16D+2P).	availability asks	
		scale out architecture should have at least 100 Gbps bandwidth per		
		controller for backend interconnect switches / InfiniBand switches		
		/ pci-e based multilane connectivity between all HA pair. It is	1. Is the bank planning to connect 8x 25 G ports per HA pair for controller	
		required for quick migration of datastore from One HA pair to	interconnect? 2. Volume or Datastore movement from one HA pair to	
203		another HA pair.For Non Production Storage(Category 2)	another in Modern Architecture is not part of Management or back end	
		Connectivity between HA Pairs :34. Scale out architecture should	switch, it use modern FC and/or ethernet peering between HA pairs for	
		have at least 50 Gbps bandwidth per controller for backend	low latency data movement, limiting it to only ethernet and a legacy way	
		interconnect switches / InfiniBand switches / pci-e based multilane	of cluster interconnect restricts wider participation, please allow 128G	No Change, as per RFP.
		connectivity between all HA pair. It is required for quick migration	FC connection & 64G FC for non production ( in addition to 100G/50G	
63/167		of datastore from One HA pair to another HA pair	ethernet )per HA pair as an option for vol move feature.	
				No Change, as per RFP.
204		Storage should be enterprise class (declared in publicly available		
66/167		documentation) high end storage	Is analyst reference allowed to be quoted for this point	
				No Change, as per RFP.
205		Array should be supplied with one global hot spare disk for every 25 disks	Kindly allow Equivalent of Spare disk or Reserve spare capacity on the	
67/167		of same capacity and speed	system .	
200				No Change, as per RFP.
206		62. The storage array must provide capability for thin and thick	Marchine and the state of the s	
68/16/		provisioning of LUNs along with automatic space reclamation technology	kindiy allow Thin/Thick LUN	No Change as not REP
207		60. System must have capability to designate slabel bet server that an	Kindly allow Equivalent of designate states hat same disk as Deserve	no change, as per KFP.
207		by. System must have capability to designate global not spares that can	Kinuly allow Equivalent of designate global not spare disk of Reserve	
69/16/		automatically be used to replace a falled disk/drive	spare capacity on the system .	

208			75. Proposed Storage must homogeneously integrate with existing Cloud	Kindly expand on the integration with existing storage enevironment,	No Change, as per RFP.
			incorporating Broadcom (VMware) technology stack, Commvault Backup	what integration is the bank envisioning between two different brand	
	70/167		Solution and existing storage environment.	storage systems?	
			96 BBO for storage based replication must be pear Zero. Bropped	True Superconfigation colution is Zoro BBO and BTO, poor zoro doorn't	No Change as not BED
209			storage should support synchronous replication with support for Near	qualify as Sync but semi-sync / continous replication is semi-	No change, as per KFP.
	71/167		Zero RPO and RTO	sync/continous replication required instead of Synchronous?	
	,		Total 10.5 Peta Bytes (PB) (5.25 PB at PR site and 5.25 PB at DR site)	Kindly allow High capacity, High density <b>75TB</b> QLC drives in addition of NL-	No Change, as per RFP.
210			usable storage space, 80% NLSAS and 20% NVMe TLC drive based Object	SAS drive as well for the solution to have better perfromance and	
	71/167		Storage for two sites	efficiency.	
				Kindly allow High capacity, High density 75TB QLC drives in addition of NL-	- No Change, as per RFP.
211			Each data drives should have a maximum capacity of 16.xx TB 7.2k RPM	SAS drive as well for the solution to have better perfromance and	
	71/167		NL-SAS HDD and maximum of 16.xxTB capacity drive in SSD.	efficiency.	
			The Channel of the shift of the second se		
242			The Storage nodes in the object storage must be provided with	Kindly allow OEM to size the bandwidth at the system/cluster level to	
212			Parts on each node chould be provided. Each node chould be a congrate	deriver the asked throughput/Performance,instead of limiting to per	No change, as per KFP.
	72/167		ports on each node should be provided. Each node should be a separate	hode port/s.Pure Storgae solution is a modern architecture offering 800G	
-	/2/10/			bandwidth at the chassis level with built in Load balancers.	
				the RFP ask-"Object Storage shall allow any object to be accessed from	
				any node at any site with most recent version of data always available"	
213			Erasure coded data must be encoded efficiently, regardless of object size.	points to inter site/global erasure coding that is not applicable here as	No Change, as per RFP.
			Object Storage shall allow any object to be accessed from any node at	the deploymet is for less than 3 sites- here there are only 2Sites in RFp	
	72/167		any site with most recent version of data always available	ask- which points to replication, Kinldy clarify.	
			The Object storage proposed should be integrable solution with scale out	Kindly expand on the details and level of integration required, also Please	2
214			architecture. Entire solution should be from Single OEM and must	allow bidder to quote best of breed solution for Primary as well as Object	No Change, as per RFP.
			provide single point of support for all levels of issues/escalations for	storage by relaxing the clause of Single OEM for Primary and Object	
	73/167		Object Storage.	storage solution.	Ne Channe an an DED
215			Tigring should be able to get baced on Object Size or policy on age of	Is the bank looking to tige data to Huppercealor cloud, kinkly charge details	NO Change, as per KFP.
215	73/167		data	of the Hyperscaler cloud solution	
-	/3/10/			1. Kindly allow nomenclature as -Nodes/blade/controllers. 2. Please	
				allow OEM to provide the required bandwidth at the	
				system/chassis(800G) level to deliver the asked	
			Proposed Object based storage should be fully distributed, symmetrical	throughput/Performance, instead of limiting to per node port/s.	
216			and scale-out architecture. Minimum 28 nodes per site should be	3. Minimum 28 node limit( is a limiting factor with modern architecture	
			provided for user data access with minimum 4 numbers of 25Gbps LAN	and pointing to a legacy architecture) should be relaxed as upto 28	No Change, as per RFP.
			Ports on each node. Each node should be a separate appliance or	Nodes or higher to allow latest generation future proof storage design	
	73/167		physical servers.	and architecture/s.	
				Suggestion - It is requested with Technical Committee to modify the	
				clause to minimum 512GB cache per array/node/HA pair as each Storage	
217			Per controller cache must be minimum of 1 TP in case of 2 controller UA	Usive nave their own architecture and role of cache quantity is	No Change as not RED
			nair If 4 controller HA nair system is proposed, then global cache must	nacependent of the performance given by storage. Limiting Cache to	No change, as pel NFP.
	61	Cache size	be minimum 2 TB.	would favour particular OFMs.	
	01			Suggestion - It is requested with Technical Committee to modify this	
			The Proposed solution should provide self-encrypting drives or Data	clause to "The Proposed solution should provide Data at Rest Encryption	
218			Encryption at Rest that are AES256, FIPS 140 - 2 and other industry	through controller or self encrypting drives/SSDs and should be	No Change, as per RFP.
			leading encryption algorithm or standards compliant. The proposed	compliant to AES-256, FIPS 140-2 and other industry leading encryption	
	63	Encryption	encryption should not impact performance.	algorithm compliant"	
1					
			For production storage (Category -1) LAN Port 1:30. Each controller must		
210			ave minimum 4 (2 primary and 2 secondary) X 10 Gbps riber LAN ports		
219			norts dedicated for serving isosi and NES	Suggestion - As each Storage OEM have their own architecture It is	
			For non-production storage only(Category 2): LAN Port 1:30. Each	requested that Technical Committee to amend this clause as "Fach	
			controller must have minimum 2 (1 primary and 1 secondary) x 10 Gbrs	controller must have minimum 1 (1 primary and 1 secondary) x 10 Gbos	No Change, as per REP.
			fiber LAN ports or minimum 2 (1 primary and 1 secondary) 25 Gbps or	fiber LAN ports or minimum 2 (1 primary and 1 secondary) 25 Gbps or	······································
1	65-66	LAN Port 1	higher fiberLAN ports dedicated for serving data replication	higher fiber LAN ports dedicated for serving iscsi and NFS"	

			For production storage (Category -1) LAN Port 2 :31. Each controller must	Suggestion - As each Storage OEM have their own architecture It is	
2	20		have minimum 4 (2 primary and 2 secondary) x 10 Gbps fiber LAN ports	requested that Technical Committee request you to relax this clause as	No Change, as per RFP.
			or minimum 2 (1 primary and 1 secondary) 25 Gbps or higher fiber LAN	10Gbps/ 25gbps ports are not used for replication in some of the OEMs	
	66	LAN Port 2	ports dedicated for serving data replication.	and they continue using FC ports only.	
				Suggestion - As each Storage OEM have their own architecture It is	
	24			requested that Technical Committee to amend this clause to use SAS SSD	
2	21		Total 10 E Data Butoc (DD) (E 35 DD at DD cite and E 35 DD at DD cite)	desent add any performance benefit as NVMe is not used as and to and	No Change as nor RED
			usable storage snare, 80% NI SAS and 20% NVMe TLC drive based Object	protocol & in Object storage the protocol used in S3 so this point is	No change, as per KFP.
	73	Capacity	Storage for two sites.	vendor specific and should be considered for modification as asked.	
				With the sustained throughput asked storage will be filled within a two	
				days time. With 30GB/s throughput can write 2.5PB data per day thus	
				filling the entire storage within two days. Is this realistic throughput	
				required. Considering the 7 years support and planning would request	
2	22			technical commitee to adjust the throughput to 7 GB/s	
				With the sustained throughout asked storage will be filled within a two	
			Sustained Read Throughout: 30 GB/s (Gigabytes per second) or higher	days time. With 20GB/s throughput can read 1 8PB data per day. Is this	
			ner site for object size of 4 MB	realistic throughput required. Considering the 7 years support and	No Change, as per REP
			Sustained Write Throughput: 20 GB/s or higher per site for object size of	planning would request technical committee to adjust the throughput to	
	73	Throughput	4 MB	3 GB/s	
2	23		Latency for Small Objects (<1MB): < 10 milliseconds (ms) for both read	Latency is the measured used with Block storage the right measure	No Change, as per RFP.
			and write operations per site.	would be TTFB - time to first byte -request technical commitee to adjust	
_	73	Latency (Response Time)	Latency for Large Objects (>100MB): < 100 ms for read operations.	it to 15ms.	
			IOPS (Input/Output Operations Per Second)	IOPs are measure of Block storage performance & not related to object	
2	24		small Object IOPS (e.g., 4KB): 5,00,000 IOPS of higher for mixed	formula which is IORs = throughout ( object size there is discrepancy in	No Change as nor RED
2	.24		Large Object JOPS (e.g., 1MR): 50,000 JOPS or higher for sequential	the throughout acked versus object size given and IOPs asked in as per	No change, as per KFP.
	73		read/write workloads	noint 2 vs ask in point in 4.	
			Proposed Object based storage should be fully distributed, symmetrical		
			and scale-out architecture. Minimum 28 nodes per site should be		
2	25		provided for user data access with minimum 4 numbers of 25Gbps LAN		No Change, as per RFP.
			Ports on each node. Each node should be a separate appliance or	Every OEM has different solution architecture It is requested that	
	75		physical servers.	Technical Committee to reduce minimum nodes quantity to 10	
				It is requested to revise this clause as " Price quoted by the Bidder in	No Change, as per RFP.
2	26		Price quoted by the Bidder in Reverse auction shall remain valid for	Reverse auction shall remain valid for duration of 6 calendar months	
-	20	13	duration of 24 calendar months from the date of purchase order.	from the date of purchase order".	
			If existing Service Provider is breach of this obligation, they shall be liable	It is requested to amend this clause as "If existing Service Provider is	
1			for paying a penalty of 10% of the total Project Cost on demand to the	breach of this obligation, they shall be liable for paving a penalty of 5% of	
2	27		Bank, which may be settled from the payment of invoices or Bank	the total Project Cost on demand to the Bank, which may be settled	No Change, as per RFP.
			Guarantee for the contracted period or by invocation of Bank	from the payment of invoices or Bank Guarantee for the contracted	
	46	46	Guarantee.	period or by invocation of Bank Guarantee."	
					No Change, as per RFP.
2	28				
_	47	49		It is requested to delete this clause	No Charge as not DED
2	20				No change, as per RFP.
2	43	Annendix E sl no 11	Quantity_2 Rate per item_Per Man day	Do we have to submit only 2 man day cost of OEM 13 resource?	The requirement is for Seven Years
$\vdash$				so we have to submit only 2 man day cost of Ocivites resources	No Change, as per RFP.
2	30				
1	93	Appendix F sl no 12	Quantity -2 Rate per item- Per Man day	Do we have to submit only 2 man day cost of Bidder L3 resource?	The requirement is for Seven Years.
					No Change, as per RFP.
2	31				
	93	Appendix F sl no 13	Quantity -4 Rate per item- Per Man day	Do we have to submit only 4 man day cost of Bidder L2 resource?	The requirement is for Seven Years.
					No Change, as per RFP.
2	32				
	93 & 94	Appenaix F sl no 15 to 19		Do we nave to submit 2 years total AMC cost?	

233	106- 108	(a) Penalties		It is requested to include capping of Penalty clause as " Penalty Cap: The penalty for non- performance of SLA to not exceed 5% of Contract Value // Project Cost"	No Change, as per RFP.
234	100 100	16/1 Chantes.			No Change, as per RFP.
235	34	1 33. i.	.RIGHT TO AUDIT:	The external auditor to sign NDA prior to the audit. TCS associates will sign TCS NDA while on-boarding. Kindly confirm if there is any requirement for associates to sign customer NDA	No Change, as per RFP.
236	64	B. 4. 18.	Non-production Storage (Category 2):	Backup and restore is in scope of whom (TCS/ customer)? How frequently will the backup be done? Where will the backup be stored and in what format?	No Change, as per RFP.
237					No Change, as per RFP.
238	86	0.1.20.	SAN switch specifications	Where is the data center located ? Moreover, is entire DC infra in scope of TCS or customer ?	No Change, as per RFP.
239	90	1	Scope of Work and Payment Schedule	Rank's policies refered here to be shared with TCS	No Change, as per RFP.
240	91	11	Scope of Work and Payment Schedule	Bank's IS and information technology policies refered here to be shared with TCS.	No Change, as per RFP.
241	121	6. 5.	RESPONSIBILITIES OF SERVICE PROVIDER	what kind of data will be stored and where will it get stored? Will there be any PII data stored?	No Change, as per RFP.
242	57	,	Client references and contact details (email/ landline/ mobile) of customers for whom the Bidder has executed similar projects in India. (Start and End Date of the Project to be mentioned) in the past (At least 2 client references of total 5 Peta Bytes are required)	Please modify to Bidder / OEM reference.	No Change, as per RFP.
243	73	1 Capacity	Total 10.5 Peta Bytes (PB) (5.25 PB at PR site and 5.25 PB at DR site) usable storage space, 80% NLSAS and 20% NVMe TLC drive based Object Storage for two sites.	Please change the clause to allow both NL-SAS/SATA and drive type as both TLC/QLC. Both NL-SAS/SATA drive types have same RPM. It is just connector difference which in a distributed node based architecture doesn't provide any value add since disk queuing is substantially reduced by globally coherent cache.	Please refer Corrigendum No. 1
244	73	6 Disk Size	Each data drives should have a maximum capacity of 16.xx TB 7.2k RPM NL-SAS HDD and maximum of 16.xxTB capacity drive in SSD.	Please change the drive type to NL-SAS/SATA. Both drive types have same RPM. It is just connector difference which in a distributed node based architecture doesn't provide any value add since disk queuing is substantially reduced by globally coherent cache.	Please refer Corrigendum No. 1
245	73	7 Resiliency	The object storage must be enterprise class object storage that provides no single point of failure, high resiliency, and redundant components with 99.9999% data availability and uptime guaranteed on yearly basis.	Please help to relax this to 5 9's of availability as that is the published number for the bidder. Both node and disk level failure is taken care with 5 9's of availability. ECS provides max of 4 drives and 4 nodes failure which is highest in industry and same can be fulfilled by 5 9's	No Change, as per RFP
246	74	10	Erasure coding algorithm provided must support data protection against 3 or more simultaneous nodes / disks failures across the storage nodes.	Erasure coding algorithm provided must support data protection against 4 or more simultaneous disks or single node failure across the storage nodes at any point in time. A node based multi-controller EC based architecture should be able to mitigate both node and disk level failures. Also, lower level of failure protection for higher number of nodes will not match the availability criterion stated in previous clause. Hence request to amend the clause to both node and disk level protection.	No Change as per REP
247	74	12	Erasure coded data must be encoded efficiently, regardless of object size. Object Storage shall allow any object to be accessed from any node at any site with most recent version of data always available.	Erasure coded data must be encoded efficiently, regardless of object size. Object Storage shall allow any object to be accessed from any node at any site with most recent version of data always available with strong consistency. We recommend to mention strongly consistent architecture in this clause as some legacy object architectures prefers availability over consistency.	No Change, as per RFP
248	75	25	Object storage must be supplied with ability to tier objects from local disk to external cheaper storage tier like S3 compliant storage, Public Cloud.	S3 to S3 transfer of data cannot be called as Tiering, The correct terminology should be "ability to copy objects from local disk to external Public Cloud	No Change, as per RFP

240	75	26	Tiering should be able to set based on Object Size or policy on age of	Copy of object to cloud should be able to set based on Object Size or	
249	75	20	data.	policy on age of data.	No Change, as per RFP
			Each Cluster Data Center must provide high availability and support a		
			throughput of 25 Gbps x 4 per load balancer. While the default		
			requirement specifies two external third-party load balancers in HA mode		
250	75	26	to achieve this, solutions that leverage built-in load balancing		
250	75	30	mechanisms without external load balancers may also be considered.		
			Such solutions must demonstrate equivalent or superior throughput (25	Please specify throughput required in load balancer as well. The LB	
			Gbps x 4 per site) and high availability through internal mechanisms.	should be compatible with storage throughput asked. Hence LB	
				throughput should also be mentioned.	No Change, as per RFP
251	10	11	Bids must be submitted online on GeM portal by the date and time	Both the Clauses are contradictory therrfore it is requested to please	Blosso refer Corrigondum No. 1
251	19	11.1.	mentioned in the "Schedule of Events" of this RFP.	clarify the online bid subsmission process / portal.	Please relet comgendum No. 1
252	3	1.7	Address for submission of Bids is https://etender.sbi	Kindly Clarify	No Change, as per RFP.
	57	Bidder's Eligibility . 7	Client references and contact details (email/ landline/ mobile) of	This clause is restrictive in nature, Therefore, for wider partcipation it is	
			customers for whom the Bidder has executed similar projects in India.	requested to amend this clause as mentioned below: Client references	
			(Start and End Date of the Project to be mentioned) in the past (At least	and contact details (email/ landline/ mobile) of customers for whom	
253			2 client references of total 5 Peta Bytes are required)	the Bidder has executed similar projects in India. (Start and End Date of	
				the Project to be mentioned) in the past (At least 2 client references of	
				supply of storage solutions)	
					No Change, as per RFP
				Request SBI to change to : Client references and contact details (email/	
			Client references and contact details (email/ landline/ mobile) of	landline/ mobile) of customers for whom the Bidder has executed similar	
254			customers for whom the Bidder has executed similar projects in India.	projects in India. (Start and End Date of the Project to be mentioned) in	
			(Start and End Date of the Project to be mentioned) in the past (At least	the past (At least 2 PO references of total 4 Peta Bytes are required for	
	57	Eligibility SI # 7	2 client references of total 5 Peta Bytes are required)	new PO or augumentation PO)	No Change, as per RFP
1	1			Request SBI to change to : At least 2 PO references along with contact	
255			At least 2 Client references along with contact details (email/ landline/	details (email/ landline/ mobile) with install base of minimum 4 Peta	
1	1		mobile) with install base of minimum 10 Peta Bytes storage total in India	Bytes or above of storage total in India. These storage POs can be of	
	57	Eligibility SI # 8	of the storage OEM, whose products being proposed as part of this RFP.	same or similar OEM products being proposed as part of this RFP.	No Change, as per RFP