



Request for Proposal (RFP)

SERVER CONSOLIDATION & HARDWARE REFRESH

SBI Capital Markets Ltd

Ref: RFP no. CO/IT/1975

Date: 28-Aug-21

Corrigendum & Addendum No. 1 dated 24th September 2021

Tentative Factsheet for Tender Submission

Item	Description
Date of RFP issuance	28-Aug-21
Last date and time for Bid/Proposal submission (on or before)	04-October-21 through email Krishna.prajapati@sbicaps.com . Please share the scanned copy of Tender document with sign and Stamp) between (11.00 am to 12.00 pm)
Indicative Commercial Bid Submission	06-Oct-21 on eTender Website
Reverse Auction Date	8-Oct-21 (Tentative)

Main RFP Document

Sr. No.	Section in RFP	Reference # in RFP	Modified Clause/ Details	Remarks
1	Disclaimer Page-7	Price validity	Price Validity for three years has modified to One year based on the dollar fluctuation.	
2	Buyback of Old Server	General	Annexure-P is removed as buyback of old hardware is not included now in the RFP Commercial bid.	
3	Commercial BID	Bid Format	Bid format has been updated. BoQ 1 and BoQ 2 has been categorised for 2 solutions. Hardware Accessories price discovery has been removed.	
4	SOW 3.2	3.2 section	Storage and Backup solution implementation is required from OEM of the solution	
		Bandwidth Sizing	The clause for bandwidth sizing has been added considering the DC-DR replication for VM's and Backup with expected time frame.	
		Training	Training requirement is amended and to be given from OEM/Partner.	
		SCD	The Vendor shall establish and implement the Secure Configuration Document for all the components supplied under this RFP as per OEM standard before production including Windows Operating System as per SBICAP requirements. SBICAP shall provide SCDs for Windows OS for implementation.	
5	Hardware Warranty	3.3 Section point (c)	Warranty should not become void if the purchaser buys compliant hardware/Supplemental hardware" from authorized vendor / OEM and install it with/in these machines.	
		3.3 Section point (c)	Hardware Fault rectification has been amended to 4-6 hours	
6	Payment Terms for 4 th and 5 th year		The limit of minimum 10 % is applicable for 4 th and 5 th year AMC cost.	

Technical Specification Annexure-B

Sr. No.	Reference # in RFP	Modified Clause/ Details
Solution Overview		
1	iSCSI Protocol to be used at DR site	Its has been decided to have same architecture at DR site i.e., architecture based on the SAN protocol
2	Windows Licenses	The bidder is required to quote Windows CAL licenses along with Windows Server License.
3	KVM Switch	The bidders is required to quote KVM switch at DC and DR site with console. Specifications included in the spec's worksheet
Storage-DC		
1	The storage system should be offered with minimum 64 GB of cache. The cache should be upgradeable to 128 GB doing data in-place controller upgrade or addition. OEM should quote 128 GB cache on day 1 if Upgrade is not supported.	The storage system should be offered with minimum 64 GB cache / controller's pair. The cache should be upgradeable doing data in-place controller upgrade or with scale out facility.
2	The storage shall support SSD, SAS and SATA/NL-SAS based disks simultaneously under a single storage subsystem. The storage shall be supplied with at least 240TB usable capacity at DC (25TBu on SSD & 215 TBu on NL_SAS drives) without any efficiency enabled. Storage Capacity should be sized with Raid 6 or equivalent Raid group and hot spare should be configured for each raid group.	The storage shall support SSD, SAS and SATA/NL-SAS based disks simultaneously under a single storage subsystem. The storage shall be supplied with at least 22 TBu on SSD (Not higher than 3.8 TB) & 30 TBu on SAS (not higher than 1.8 TB) 150 TBu on NL_SAS drives (Not higher than 12 TB) without any efficiency enabled. Storage Capacity should be sized with one Global hot spare for SSD tiers minimum 2 Global hot spare for SAS and NL-SAS Tier.
3	The storage array must support policy-based compression and deduplication for SAN and NAS workloads. License for the same if required, should be included for entire scalable capacity. Dedupe and Compression should be supported on all kinds of drives and should not be restricted to only SSD drives. If De-dupe & compression is not supported on SAS/NL_SAS drives, the bidder is required to give additional 20 TB usable capacity should be sized on the same SSD Tier.	The storage array must support policy-based compression and deduplication for SSD Tier.
4	The storage system should be possible to withstand failure of any 2 disks per RAID-Group of size not more than 13 disks. In the case, architecture uses a single pool instead of multiple RAID Groups, system should be resilient against failure of two drives for every 13 drives used in the pool in SSD Tier. the bidder should ensure 1 hot spare drive for each Raid Group	The storage system should be possible to withstand failure of any 2 disks per RAID-Group as per OEM best practices. In the case, architecture uses a single pool instead of multiple RAID Groups, system should be resilient against failure of two drives for every 13 drives used in the pool in SSD Tier. the bidder should ensure 1 hot spare drive for each Raid Group
	NAS File Server should be Integrated with Domain Controller (Active Directory) NAS File Server should have File Filter restriction NAS File Server should be Integrate with Antivirus Solution NAS File Server should provide High availability. The platform should provide File Auditing (Change/Delete tracks) and tight integration	NAS File Server should be Integrated with Domain Controller (Active Directory-2012 R2 and above for File permission management. NAS File Server should have File Filter restriction NAS File Server should provide High availability and should deployed on proposed unified storage

	with Active Directory 2008 R2 and above for permission management	
5	Not part of existing Specs	The proposed file server on NAS header would be accessed by 500 concurrent users and proposed Storage Resources (CPU, Memory cache) should be work seamlessly without having any performance issues. (Addl point)
Storage -DR		
1	The storage shall support SSD, SAS and SATA/NL-SAS based disks simultaneously under a single storage subsystem. The storage shall be supplied with at least 50 TB usable capacity at DC (20TBu on SSD & 30 TBu on NL_SAS drives) without any efficiency enabled. Storage Capacity should be sized with Raid 6 or equivalent Raid group and hot spare should be configured for each raid group.	The storage shall support SSD, SAS and SATA/NL-SAS based disks simultaneously under a single storage subsystem. The storage shall be supplied with at least 22 TBu on SSD (Not higher than 3.8 TB) & 30 TBu on SAS (not higher than 1.8 TB) without any efficiency enabled. Storage Capacity should be sized with one Global hot spare for SSD tiers minimum 2 Global hot spare for SAS tier
3	The storage array must support policy-based compression and deduplication for SAN and NAS workloads. License for the same if required, should be included for entire scalable capacity. Dedupe and Compression should be supported on all kinds of drives and should not be restricted to only SSD drives. If De-dupe & compression is not supported on SAS/NL_SAS drives, the bidder is required to give additional 20 TB usable capacity should be sized on the same SSD Tier.	The storage array must support policy-based compression and deduplication for SSD Tier.
4	The storage system should be possible to withstand failure of any 2 disks per RAID-Group of size not more than 13 disks. In the case, architecture uses a single pool instead of multiple RAID Groups, system should be resilient against failure of two drives for every 13 drives used in the pool in SSD Tier. the bidder should ensure 1 hot spare drive for each Raid Group	The storage system should be possible to withstand failure of any 2 disks per RAID-Group as per OEM best practices. In the case, architecture uses a single pool instead of multiple RAID Groups, system should be resilient against failure of two drives for every 13 drives used in the pool in SSD Tier. the bidder should ensure 1 hot spare drive for each Raid Group
	NAS File Server should be Integrated with Domain Controller (Active Directory) NAS File Server should have File Filter restriction NAS File Server should be Integrate with Antivirus Solution NAS File Server should provide High availability. The platform should provide File Auditing (Change/Delete tracks) and tight integration with Active Directory 2008 R2 and above for permission management	NAS File Server should be Integrated with Domain Controller (Active Directory) NAS File Server should have File Filter restriction NAS File Server should be Integrate with Antivirus Solution NAS File Server should provide High availability. The platform should provide File access logs and integration with Active Directory 2008 R2 and above for permission management.
5	Not part of existing Specs	The proposed file server on NAS header would be accessed by 500 concurrent users and proposed Storage Resources (CPU, Memory cache) should be work seamlessly without having any performance issues. (Addl point)
Compute-DC		
1	Systems should have minimum dual 28 core Intel® Xeon® processor scalable family CPUs-	Systems should have minimum dual 28 core Intel® Xeon® processor scalable family CPUs-intel Skylake 6330 2.0 GHz / Icelake Intel® Xeon® Gold

	intel Skylake 6330 2.0 GHz / cascade lake Intel® Xeon® Gold	
2	Systems should support Operating Systems VMware, Hyper-V, Windows: Win2016/2019, Win2012R2, Win2008R2, Linux: RHEL 6.5/6.6/6.7/7.0/7.2/SLES 11 SP3 and SLES 12, Oracle Enterprise Linux VM, Oracle VM	Systems should support Operating Systems VmWare latest Version, Hyper-V, Windows Win2016/2019, Win2012R2, Oracle Enterprise Linux VM, Oracle VM.
3	Systems should have two 10/25-Gb Fiber channel ports (using Two Single Port PCIe cards) 2 * DP 10/25G NIC card with SFP+ Transceivers 1 * Dedicated 1G port for out of band monitoring	Systems should have two 16/32-Gb Fiber channel ports (using Two Single Port PCIe cards), 1 * Dedicated 1G port for out of band monitoring
4	Not part of existing Specs	The bidder is required to propose VMware standard Licenses for the proposed server hardware with 3+2 years back-to-back support from OEM. The hyper visor should also support Win 2008R2 and above, Linux: RHEL 6.5/6.6/6.7/7.0/7.2
5	Specification Addl Server requirement for Backup Exec server	These specs are removed. No Addl server required to be proposed separately for existing Backup exec server
Compute-DR		
1	Systems should have minimum dual 28 core Intel® Xeon® processor scalable family CPUs-intel Skylake 6330 2.0 GHz / cascade lake Intel® Xeon® Gold	Systems should have minimum dual 28 core Intel® Xeon® processor scalable family CPUs-intel Skylake 6330 2.0 GHz / Icelake Intel® Xeon® Gold
2	Systems should support Operating Systems VMware, Hyper-V, Windows: Win2016/2019, Win2012R2, Win2008R2, Linux: RHEL 6.5/6.6/6.7/7.0/7.2/SLES 11 SP3 and SLES 12, Oracle Enterprise Linux VM, Oracle VM	Systems should support Operating Systems VmWare latest Version, Hyper-V, Windows Win2016/2019, Win2012R2, Oracle Enterprise Linux VM, Oracle VM.
3	Systems should have two 10/25-Gb Fibre channel ports (using Two Single Port PCIe cards) 2 * DP 10/25G NIC card with SFP+ Transceivers 1 * Dedicated 1G port for out of band monitoring	Systems should have two 16/32-Gb Fibre channel ports (using Two Single Port PCIe cards), 1 * Dedicated 1G port for out of band monitoring
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5	Specification Addl Server requirement for Backup Exec server	These specs are removed. No Addl server required to be proposed separately for existing Backup exec server
Backup Software DC&DR		
1	Backup software Must be present in Leader's quadrant in the latest Gartner's Magic Quadrant for backup software's	Backup software Must be present in Leaders/Challengers quadrant in the latest Gartner's Magic Quadrant for backup software's
	As a backup tool all audit trails must be logged for tracking any changes on backup server.	As a backup tool all audit trails must be logged for tracking any changes on backup server. Should support Log truncation of SQL/Exchange DBs either on daily, weekly or monthly basis depending on the customer's requirement. The backup software should also support purge of archive logs in case of Oracle DB. The log truncation should e supported in both agent-based and agentless backups.

	Addl point for Ransomware security against ransomware	Backup servers all Component (Backup, Catalog, Media's server) Must have EDR deployed by OEM and support for those EDR must be provided by backup OEM Directly and should have separate console
	Backup software should be supplied with licenses based on the entire storage capacity supplied, irrespective of No. of backup clients, configuration of backup clients, Tape drives, Tape libraries, etc. Should be able to perform SAN based / LAN Based backups. Backup Software should be capacity based license for 30 TB Source Usable data at DC site or VM based licensing options considering minimum 50 VMs or CPU Socket	Backup software should be supplied with licences based on 50 TB front end data for as per supplied appliance capacity.
	Each Site (Primary & DR) : Proposed array / appliance solution must be sized appropriately for backup of 30 TB front end data comprises of DB and Flat File Data/Application/Virtual Environment. The bidder is required to refer the Backup retention policies of SBICAP mentioned in Annexure-O and in point no. 23 in this worksheet. The bidder is required to supply minimum 70 TB usable /700 TB Logical (without dedup/compression) storage capacity D2D hardware which should be capable to retain the data for the period of three years (17 Full backup and 7 incremental copies) as per the growth demonstrated in Annexure-O for 3 years. The bidder is required to size the storage/appliance considering 20% of free space at all time.	Each Site (Primary & DR): Proposed array / appliance solution must be sized appropriately for backup of 40 TB front end data comprises of DB and Flat File Data/Application/Virtual Environment. The bidder is required to refer the Backup retention policies of SBICAP mentioned in Annexure-O. The bidder is required to supply minimum 70 TB usable (without dedup/compression) /700 TB Logical storage capacity D2D hardware which should be capable to retain the data considering 40 TB (3rd year prospective data). The bidder is required to size the storage/appliance considering 20% of free space at all time and also factor additional capacity in case 70 TB is not adequate.
	It should be possible to failover the backup server to an alternate server in case of failure of primary node by configuring the backup server in HA mode. All necessary hardware / software should be supplied.	It should be possible to failover the backup server to an alternate server in case of failure of primary node by configuring the backup server in HA mode. All necessary hardware / software should be supplied. Pls specify if failover facility will be provided from DR site server.
D2D hardware		
	The proposed disk-based backup array/appliance should support high availability with at least two controllers in HA mode	The proposed disk-based array should support high availability with at least two controllers in HA mode. In case of offering of Specialised Backup array appliance, the solution should provide 99.99 % with Data Recovery assurance
	Proposed disk backup array/appliance should support Global data deduplication and/ or compression	Proposed disk backup array/appliance / Solution should support Global data deduplication and/ or compression
	Offered device shall support rated write performance of more than 12TB at DC/8 TB at DR per hour in native mode from Day one and	The proposed hardware should be able to complete the 30 Tb front end backup within 4-6 hours

	up to 30 TB with source-based deduplication during Full Incremental Backups	
	per 1 TB/10 Min. for Backup 1 TB/20 Min for Restoration window	per Considering 30 TB front end data 4-6 Hours backup- Considering 30 TB front end data 6-12 Hours-restoration window
DC-TOR-Core switch		
1	Switch should support minimum 28GB System Memory	Switch should support minimum 24 GB System Memory
2	The OEM suggested should be a part of the Leaders quadrant of 2020 Gartner (Report) Magic Quadrant for Wired and Wireless LAN Access Infrastructure	The OEM suggested should be a part of the Leaders quadrant in last 3 years Magic Quadrant for DC Networking
3	Switch should have Minimum non-blocking 24 X 1/10/25G optic ports and 6X 40/100G optic uplink ports	Switch should have Minimum non-blocking min 24 X 1/10/25G but scalable to 48ports optic ports and 6X 40/100G optic uplink ports. The downlink ports must be license upgradable to 48port in case required in future. The switch must support 3.6 Tbps of bandwidth with or without license upgrade
DR-TOR-Switch		
1	Switch should support minimum 28GB System Memory	Switch should support minimum 24 GB System Memory
2	Switch should have Minimum non-blocking 24 X 1/10/25G optic ports and 6X 40/100G optic uplink ports	Switch should have Minimum non-blocking min 24 X 1/10/25G but scalable to 48ports optic ports and 6X 40/100G optic uplink ports. The downlink ports must be license upgradable to 48port in case required in future. The switch must support 3.6 Tbps of bandwidth with or without license upgrade
3	The OEM suggested should be a part of the Leaders quadrant of 2020 Gartner (Report) Magic Quadrant for Wired and Wireless LAN Access Infrastructure	The OEM suggested should be a part of the Leaders quadrant in last 3 years Magic Quadrant for DC Networking
Hyper Visor and Microsoft Licenses		
1	The bidder is required to supply Windows 2019 Standard Server license without SA considering the processor cores and for 30 nos. of Virtual Machines	The bidder is required to supply Windows 2019 Standard Server license without SA considering the processor cores and for 30 nos. of Virtual Machines for 400 user cals
Server RACK		
1	3 nos of 12-socket or higher vertical PDU, with 15A/5A IEC Sockets, Power with IP based facility	3 nos. of 12-socket or higher vertical PDU, with 15A/5A IEC Sockets, Power
2	Server Rack, 42U, 600mm x 1200mm which should accommodate Proposed Servers and Network Components	Server Rack, 42U, 800mm x 1200mm which should accommodate Proposed Servers and Network Components
Addl Specs		
1	Specs sheet for KVM and console has been included KVM/Foldable LCD and Mouse	

