

Date: 28<sup>th</sup> November 2019

## Addendum -2

### Subject: Bid for Upgradation of Unified Storage Box

All prospective Agencies interested in participating for bidding are requested to refer to the Original e-tender Notice “**Bid for Upgradation of Unified Storage Box**” released on our website (<http://www.utiitsl.com>) and Tenderwizard portal (<https://www.tenderwizard.com/UTITSL>) on 31<sup>st</sup> October, 2019 and the current Addendum -2 document being detailed as under.

Prospective bidders are requested to note the below modifications / corrections and submit their quotes accordingly. Other contents remain unchanged.

**Table-A: Modification/ Correction:**

Sr. No	Clause No./ Table No./ Annexure No./ Page No.	Modification / Correction	Remark
1.	Page 21, Part II, Annexure -1, Table -1	Table -1a modified to Table -1b. Table -1a stands cancelled	<b>Please refer modified Table -1b for Technical Compliance</b>
2.	Page 21, Part II, Annexure -1,	Added Table -2 for Technical Compliance for upgradation of Tape Library	<b>Please refer Table -2 for Technical Compliance for upgradation of Tape Library</b>
3.	Page 21, Part II, Annexure -1,	Added Table -3 for Technical Specifications for Servers	<b>Please refer Table -3 for Technical Compliance for Servers</b>
4.	Page 21, Part II, Annexure -1,	Added Table -4 for Technical Specifications for Unified Storage Box	<b>Please refer Table -4 for Technical Compliance for Unified Storage Box</b>
5.	Page 23, Part III, PRICE QUOTE	Table -1a modified to Table -1b. Table -1a stands cancelled	<b>Please refer modified Table -1b for Commercial format</b>
6.	Page 23, Part III, PRICE QUOTE	Added Table -2 for commercial bid format for upgradation of Tape Library	<b>Please refer Table -2 for Commercial format for upgradation of Tape Library</b>
7.	Page 23, Part III, PRICE QUOTE	Added Table -3 for commercial bid format for Servers	<b>Please refer Table -3 for Commercial format for Servers</b>
8.	Page 23, Part III, PRICE QUOTE	Added Table -4 for commercial bid format for Unified Storage Box	<b>Please refer Table -4 for Commercial format for Unified Storage Box</b>

9.	Page 15, PART II – SPECIAL CONDITIONS	Added additional Scope of Work for Servers and Storage	<b>Please refer attached Scope of Work</b>
10.	Page no. 19, PART II, Other General Instructions for Technical Bid, K Support Terms	Added additional Support Terms for Servers, Storage Box, Tape Library	<b>Please refer attached Support Terms</b>

All bidders should refer to website (<http://www.utiitsl.com>) and (<https://www.tenderwizard.com/UTIITSL>) for release of any new corrigendum / Addendum hereafter till the last date for submission for any updates and further modification for inclusion or exclusion as necessarily required for bid submission.

sd/-  
(Authorized Signatory)

**Table -1b:** Upgradation of existing Dell EMC VNX 5300 Storage installed at DC (Railtel Data Centre at Secunderabad) and DR (Guragon)

Description of Items	Qty	Compliance (Y/N)
<p><b>4 TB useable Space</b> after <b>RAID</b>, upgradation requirement at DC (Railtel Data Centre, Secunderabad)</p> <p>900 GB 15K rpm SAS 2.5” Hot-plug Storage Hard Drive</p> <p>Site Number: 1004515410 Storage serial no. CKM00140900498</p>	8	
<p><b>4 TB useable Space</b> after <b>RAID</b>, upgradation requirement at DR (Railtel Data Centre, Guragon)</p> <p>900 GB 15K rpm SAS 2.5” Hot-plug Storage Hard Drive</p> <p>Site Number: 1004515412 Storage serial no. CKM00134501433</p>	8	

**Table -2:** Upgradation of existing IBM TS 3200 Backup Tape Library at DR (Railtel Data Centre at Guragon)

Component	Specifications	Qty	Compliance (Y / N)
Tape Library	<p><b>Upgradation of existing IBM TS 3200 Backup Tape Library (Part No. 6173-4UL).</b> We require additional 2 x LTO5 FC Drive with all accessories in the same chassis. Warranty: Co terminus i.e 31/03/2021</p> <p><b>Note:</b> As of now 2 x LTO5 FC drives, 48 Slots with redundant power supply is installed <b>(Part No. 6173-4UL).</b></p>	2 x LTO5 FC Drive	
Backup Software	<p>Additional Backup software licenses if required should be provided for taking backup and it should support Heterogeneous Operating Systems / Heterogeneous database backup. All the required licenses must be quoted.</p> <p><b>Note: Currently we are using Networker 9.2 for taking backup.</b></p>	As Applicable	

**Table -3: Technical Specifications for Servers:**

S/N	Description	Technical Specification	Qty	Compliance (Yes / No)
	<b>Server Make &amp; Model</b>	<b>Any Reputed MNC having Gartner Presence mentioned below.</b>	<b>2</b>	
1	Form Factor	2U Rackmount Server with redundant power and I/O		
2	Processor	Latest generation x86-64 processor, 1 x Intel Xeon Silver 4216 2.1G, 16C/32T, 9.6GT/s, 22M Cache, Turbo, HT (100W) DDR4-2400. Scalable upto two Intel® Xeon® processors.		
3	Cache Memory	22 MB L3 cache Per Processor or higher		
4	Mother Board	INTEL C621 Series Chipset or higher		
5	Bus Architecture & Slot Type	PCI Bus Architecture with minimum of 4 slots		
6	Memory	32GB (2X16GB) ECC DDR4 RAM 2666 MT/s or higher		
		Memory should be upgradeable up to 1 TB RAM (registered ECC Fully buffered DIMM's)		
		Should be populated with 16 GB DIMM's or higher that can be upgradable up to 256GB RAM without changing the existing RAM installed.		
7	VGA Card	Integrated Onboard Graphics		
8	RAID Support	SAS RAID controller card with RAID 0,1,1+0 support with 2GB Cache		
9	Hard Disk Drive	3 * 600GB SAS-2 2.5" HDD (10k rpm), Hot pluggable SAS Hard Disk Drives. Up to 14 Drives		
10	DVD Writer	Internal Slim line DVD-RW		
11	Network Card	4 * 1Gbps Network Ports		
12	Ports	Minimum 2 USB 3.0 Ports		
13	FC- HBA Card (Qlogic / Emulex)	1 x Dual Port FC-HBA (Host Bus Adapter Cards) with 16 Gbps speed with auto sensing for 8/16 Gbps or higher		
14	Power Supply	Redundant Power Supply		
15	RAS Features	Memory must be ECC & spare memory protected		
		Service processor with fault monitoring,		

		Should provide predictive failure monitoring & proactive alerts of actual or impending component failure for fan, power supply, memory, CPU, RAID, NIC, HDD		
		Redundant power supplies with redundant fans and power cooling modules		
16	System Management	<ul style="list-style-type: none"> <li>• Real-time out-of-band hardware performance monitoring &amp; alerting</li> <li>• Agent-free monitoring, driver updates &amp; configuration, power monitoring &amp; capping, RAID management, external storage management, monitoring of FC, HBA &amp; CNA &amp; system health</li> <li>• Out-of-band hardware &amp; firmware inventory</li> <li>• Zero-touch auto configuration to auto deploy a baseline server configuration profile</li> </ul>		
17	Operating Systems Supported	Microsoft Windows Server 2008 / 2012 SP2, x86/x64 Windows Server 2016, VMWare, Red Hat Enterprise Linux, SUSE Linux Enterprise Server VMware vSphere ESXi 6.5 Should be compatible with all upgradable versions.		
18	Warranty and support	3 Years Onsite comprehensive warranty with 24x7x365, 6 hrs CTR. Post installations, 3 Years product warranty should reflect in the support website of the OEM.		
19	Market position	The OEM for the proposed server must be in Leaders quadrant in the last two Gartner's report of "Magic Quadrant for Modular Servers".		

**Table -4: Technical Specification of Unified Storage Box:**

Feature	Description	Qty	Compliance (Y / N)
<b>Storage Make &amp; Model</b>	<b>Any Reputed MNC having Gartner Presence mentioned below.</b>	<b>2</b>	
Architecture:	The proposed array should have dual active-active controllers with NSPoF architecture & 99.999% availability with support for NVMe and SAS based NAND drives. The proposed array		

	should be a unified storage supporting block, file services and VVOL natively without adding any additional or external device. Proposed storage should also support NDU software upgrade.		
Disk Drives	NAS Storage System should be configured with 10 TB of total usable capacity using 4 TB NLSAS drives configured in RAID 6.		
Storage Scalability	Storage should be scalable up to 2.4 PB Raw capacity.		
Support for SSD Drives	Storage system should support advance features for performance optimization using SSD drives.		
Storage Processor & Cache	STORAGE PROCESSOR & CACHE: Proposed storage solution should have storage controller with minimum 6 CPU cores and minimum 64GB cache per controller. It Should also support SSD drives as secondary cache upto 800GB.		
Front End Ports:	The proposed storage array should be configured with 12 x 16Gbps FC ports and 8 x 10GbE ports to provide scalable and dedicated connectivity to hosts and for remote replication.		
Controller	System to have NO single point of failure architecture. The Storage array should have minimum two controllers configured Active-Active controller supporting load balancing.		
Backend Connectivity	Offered Storage Should be configured with at-least 4 numbers of 12Gbps SAS backend ports across Dual controllers		
Capacity & Performacne Requirement	The proposed array must be proposed and configured with XXXTB of usable capacity and should deliver XXX IOPS (8K block size, 70% Read) with 1 MS response time. Proposed storage solution must be scalable to minimum 10PB of usable capacity with ability to increase capacity by single drive for granular upgrades		
Data Reduction for Space Efficiency:	The proposed array should support enterprise class data services including - Thin Provisioning, Inline Compression & Dedupliation,		

	Replication, Snapshot (with ROW algorithm). Storage should allow enable/disable of data services per application storage groups (single or group of LUNs). Data reduction must be supported on block (FCP, iSCSI) and file (CIFS, NFS) data		
Storage Resource Pooling	The proposed array should support mixing of different capacity of SSDs in single storage pool. Single storage pool should be accessible to both controllers.		
Data Encryption:	The proposed array must support storage controller based Data at Rest Encryption solution to encrypt data on all drives. Array should support embedded automated key management with no user intervention.		
Scalable File System	The proposed array must support traditional (user data) and transactional (VMware, Oracle) NAS use cases. Proposed storage solution must support creating multiple NAS servers for tenant isolation with each file system scalable upto 256TB.		
Host Integration:	The proposed storage should support all major hosts OS like Redhat, Linux, Windows , Hyper-V, VMWare		
Remote Replication Flexibility:	Proposed solution should be provided with licenses for remote replication in sync and async modes.		
Data Migration:	Proposed storage should include tools for data migration from existing storage. Detailed compatibility list to be submitted for the same along with SOP		
Quality of Service:	The proposed array should support QoS feature to limit the amount of IO (IOPS) or bandwidth (MB/s) a particular application can drive on the array.		
Storage Management Software	The proposed array should be supplied with native Storage management software with Web based GUI capable of generating customized reports, real time monitoring, historical performance data for analysis and trending, capacity utilization monitoring. Proposed management		

	software should support management of multiple storage system from single console		
Monitoring & Reporting	Proposed solution should also have monitoring and management tool with support for 2 years of historical reporting. Software should support monitoring and reporting multiple storage system, VMware environment and SAN switches.		
Snapshot	Proposed storage solution should support snapshot creation using ROW algorithm. Storage arrays should have ability to use snapshot as writable volume. Proposed system should support snapshot scheduler. Proposed storage should allow snapshot replication with different retention for source and destination..		
	Necessary software License should be provided with the storage for snapshot and Clone feature.		
VMware Integration	Proposed storage solution should support VMware VAAI, SRM, VASA, VVOLs and VMware cloud foundation for multi-cloud data mobility. Detailed document to be provided for the same. Proposed storage should include software to create VM consistent point-in-time copies with support for granular data restoration		
Security Compliance	Proposed storage must have USA DOD Approved Products List (APL), Controller Based Data at-rest Encryption (D@RE), HIPPA compliant, TLS 1.2 support, native SHA certificate support, IPV dual stack certified, FIPS 140-2 Level 1 certification, Common Criteria Certification international standard (ISO/IEC 15408) for computer security certification, KMIP compliant, STIG CAT1 and CAT2 compliance		
Data Archiving Support	Proposed solution should include software for policy based data archiving software to archive data from storage to secondary archival software. Software should support both NAS and Block level data archival to on-prem		



	target or to public clouds. Details on supported targets to be submitted.		
Power Supply & Fans	Dual Redundant, Hot swappable power supply and cooling fans with power cord		
Hot Spare Disks	The Storage array should support Global Hot Spare (HS) Disks. A minimum of 1 global hot spare per 30 Disk should be supplied and configured. These should be of the same type as used for the capacity requirements.		
Virtualization Support	Should integrate and support the virtualization technology that UTIITSL may choose to go in future		
Protocols	The storage should be activated with the protocol NFS, CIFS, FTP, NDMP & iSCSI.		
Cables & Accessories	All necessary cables, rack mountable kit and other Accessories must be provided		
Warranty	The vendor should provide three years onsite comprehensive warranty with 24 x 7 x 365 support, 6Hr CTR		
Gartner Report	GARTNER MAGIC QUADRANT: Bidder must be listed in leaders quadrant of Gartner MQ report for All Flash storage for last 3 years. Bidder should propose their latest storage models and solutions in response to this RFP.		

## PRICE QUOTE

**Table – 1b: (Upgradation of existing Dell EMC VNX 5300 Storage installed at DC and DR site)**

Price – Please Refer Part – II Tender Document, Clause No. A (d) Description of Items	Qty	Unit Price INR.	Total Price INR
<b>4 TB useable Space after RAID,</b> 900 GB 15K rpm SAS 2.5” Hot-plug Storage Hard Drive  For DC Secunderabad Site Number: 1004515410 Storage serial no. CKM00140900498	8		
<b>4 TB useable Space after RAID,</b> 900 GB 15K rpm SAS 2.5” Hot-plug Storage Hard Drive  For DR Gurgaon Site Number: 1004515412 Storage serial no. CKM00134501433	8		
<b>Total amount exclusive of all taxes (A)</b>			
<b>Total amount in word:</b>			

For payment terms, refer Part –II Tender document clause no. A (e).

**Table -2: Upgradation of existing IBM TS 3200 Backup Tape Library:**

Price – Please Refer Part – II Tender Document, Clause No. A (d) Description of Items	Qty	Unit Price INR.	Total Price INR
additional 2XLTO5 FC Drive with all accessories in the same chassis	1		
<b>Total amount exclusive of all taxes (B)</b>			
<b>Total amount in word:</b>			

For payment terms, refer Part –II Tender document clause no. A (e)

**Table -3: Servers**

Price – Please Refer Part – II Tender Document, Clause No. A (d) Description of Items	Qty	Unit Price INR.	Total Price INR
Servers	2		
<b>Total amount exclusive of all taxes (C)</b>			
<b>Total amount in word:</b>			

For payment terms, refer Part –II Tender document clause no. A (e)

**Table -4: Unified Storage Box**

Price – Please Refer Part – II Tender Document, Clause No. A (d) Description of Items	Qty	Unit Price INR.	Total Price INR
Unified Storage Box	2		
<b>Total amount exclusive of all taxes (D)</b>			
<b>Total amount in word:</b>			

For payment terms, refer Part –II Tender document clause no. A (e)

**Summary**

<b>Nomenclature</b>		<b>Total Amount In INR.</b>
Upgradation of existing Dell EMC VNX 5300 Unified Storage Hard Disk for DC & DR site	Total (A)	
Upgradation of Backup Tape Library for DR site	Total (B)	
Servers	Total (C)	
Unified Storage Box	Total (D)	
<b>Total amount NETT R1 = (A + B + C + D)</b>		
<b>Total Amount exclusive of all taxes in Word:</b>		

Price quoted for the bid for Upgradation of Unified Storage Box is exclusive of all the applicable taxes, cess and any other outgoing payable to any authority. The rate is exclusive of any other present or future outgo (for the period of contract) by whatever name called. The service tax, GST as per applicability is also exclusive. All such outgoings will be reimbursed on showing the proof of payment to the respective authorities. Income Tax will be deducted at source

Thanking you,

Yours faithfully,

Signature of Authorized Person

PAN Number of the agency

### **Scope of Work:**

UTI Infrastructure Technology and Services Limited (henceforth referred as UTI ITSL) invites technically complete and commercially competitive online bids from prospective OEM / OEM authorized channel partner / solution provider / dealers for supply and installation of 2 nos. of Servers and 2 nos. of Unified Storage Box (One at each location) and upgradation of Tape Library at our DC (Secunderabad and DR (Gurgaon) location as per UTI ITSL requirement or any other location as decided by UTI ITSL.

In addition to the earlier scope of work, Selected vendor has to do the supply, install, commissioning/configuration/integration with the existing setup and testing of all the equipments mentioned below with associate software / Drivers / Licenses.

**The proposed model of Unified Storage Box and Servers should not be end of Life Support Products up to 7 years from the date of installation.**

The selected vendor would have to take onsite back to back comprehensive warranty / support from the OEM for the said items (proof of taking back-to-back warranty support from the OEM should be submitted along with the delivery and installation report)

The selected vendor has to provide onsite support for both hardware and software related problem during the warranty/support period of 3 years.

All the necessary software / licenses should be Genuine and original for implementing of the said setup. Patch updation, upgradation should be freely available during the warranty period of 3 years. Freeware or open source software solution will not be acceptable.

All the IT Hardware and Software / Licenses should be integrated/configured as per the UTI ITSL requirement. The proposed solution should include all the necessary hardware and software / Licenses and other parts as per the requirement and bidder shall include all the necessary parts / items / licenses and installation charges, even if not mentioned by UTI ITSL in the scope of work / bill of material. Bidder may include those missing items and other associated cost for implementation in their commercial proposal. UTI ITSL will not consider to pay any extra cost other than commercial proposal for solution while execution of order.

The selected vendor would have to take up the installation / integration activity in coordination manner with other selected vendor, if UTI ITSL split the order among multiple vendors.

The Bidders may visit at our DC (RailTel Data Centre at Secunderabad) and DR (RailTel Data Centre at Gurgaon) to study the current infrastructure setup.

**Support Terms:**

In addition to the earlier support terms and condition, the vendor should clearly adhere to the following support terms

**For Servers, Storage Box, Tape Library** and Associated Hardware and Software Equipments,

1. Direct onsite comprehensive support on the Servers, Storage and upgraded Tape Library should be available by the vendor 24X7X6 CTR with maximum permissible downtime as specified in Clause 2 below
2. In case of a downtime beyond 6 hours, the vendor would have to arrange for standby device / replacement of parts to ensure that the work is not held up for more than 8 hours.
3. In case call is not attended / completed as in all above 1 and 2 clauses then the penalty of ₹.500/- (Rupees Five Hundred Only) on delay of every (1 hour) would be deducted till the call is completed. The penalty amount would be charged by raising invoice or else would be deducted from the amount deposited in the form of Bank Guarantee.