

CORRIGENDUM – I

**PROCUREMENT OF SERVERS AND
STORAGES FOR DATA CENTER IN BRPL**

NIT NO: CMC/BR/22-23/RB/PR/MS/1028

Tender Date:09.06.2022

BSES RAJDHANI POWER LTD (BRPL)

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TECHNICAL BOQ

Summary	BOQ Required
TYPE OF SAN	All Flash/NVMe
Number of Controller	2
Nodes	2
PROTOCOLSUPPORTED	BLOCK
Redundancy(Active-Active)	Active-Active Dual Controller
Processors	2 x 64-bit 16-core 2.50 Ghz
Memory	256 GB Memory
Flash Cache proposed and max supported	1 GB Minimum Optional
On-Node Cache proposed and max supported	1 GB Minimum Optional
Flash Cache per node pair	1 GB Minimum Optional
On-Node Cache per node pair	1 GB Minimum Optional
32Gb/s Fibre Channel Host Ports	4 8
16Gb/s Fibre Channel Host Ports	8 (Two San Switch)
1Gb/s Ethernet PORT	4
10Gb/s Ethernet PORT	124
Expansion port Count and Capacity	4
Number of expansion which can be connected	1
PCIe expansion slots	Yes
2U Controller Node Drive Capacity	24
Number of Solid State Drives supported	144 or Max
Variation of Hard Disk Capacity type (SSD)	920GB SSD, 1.92TB SSD, 3.84TB SSD, 7.68TB SSD, 15.36TB SSD
Max Raw Capacity (SSD only)	2.5 PB
Maximum Usable File Capacity With Raid 6	30 TB with RAID6
Maximum effective capacity	30 TB data storage depending on the data
Hard Disk capacity proposed	920GB SSD, 1.92TB SSD, 3.84TB SSD, 7.68TB SSD, 15.36TB SSD
Hard Disk Count Proposed	9 Disk (24 Slots)
Usable File Capacity proposed	30 TB with RAID6
Maximum efficiency and effective storage proposed	2:1 and around more than 30 TB data storage depend on the data
Maximum IOPS proposed with 8k block size	250000
RAID Levels	RAID 0, 1, 5, 6 or equivalent
RAID 5 Data to Parity Ratios	2:1 -8:1 Or Equivalent
RAID 6 Data to Parity Ratios	4:2, 6:2, 8:2, 10:2, 14:2 Or Equivalent
Storage networking supported	FC, FCoE, iSCSI,
Host/client OS supported	Microsoft Windows 2000, Windows Server 2003, Windows Server 2008, Windows Server 2012, Windows Server 2016, Linux, Oracle Solaris, AIX, HP-UX, Mac OS, VMware, ESX
Max Nodes per Cluster(NAS / SAN)	24, 12 or Equivalent

Storage SOW	<p>Rack Mount of Storage. Installation and Configuration of Storage. Network Configuration with SAN Switch for connectivity of both server. Storage luns mapping and mount on both New server (Oracle VM).</p>
Server SOW	<p>Rack Mount of Server. Installation of Oracle VM 7 in each Machine(Both New Server). Oracle 19c Installation on each VM. Oracle Installation with RAC in all 7 machine. Network Configuration with Server and Storage. Network. Storage luns mapping and mount on New server. Approx 20 TB Data Migration with old storage or Server to New Storage. Oracle T5-2 Machine and S7 (Three) create two virtual machine in each server (Oracle DB Installation For ADG) and Luns map and mount with old Storage. Oracle S7 Server create three Oracle VM which act as ADG... Database Name and Size as below which to be migrate :-</p> <ol style="list-style-type: none"> 1. DB1 : 10 TB 2. DB2 : 3 TB 3. DB3: 200 GB 4. DB4 : 1 TB 5. DB5; 200 GB 6. DB6 : 2 TB 7. DB7 : 2 TB 8. DB8 : 1 TB 9. DB9 : 200 GB <p>=====</p> <p>Total DB Size : 19.6 TB</p>

EMD Amount for Tender: Rs.4,32,000/-

Bid Submission date and Time : 07-07-2022, 1530 HRS

Bid Opening date and Time : 07-07-2022, 1600 HRS

Note: Bidder must submit the corrigendum document along with tender with signed and stamp.