



INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

MATERIALS MANAGEMENT DIVISION

Powai, Mumbai - 400076

Technical Specifications of Scalable Storage Server

Sl. No.	Item Name	Quantity	Component Name			Quantity
1	Master Node (Rack Mountable with mounting rails)	1	A. Processor			2
			1	Launch Date	After Q1-2019	
			2	Min. no. of Cores	16	
			3	Hyper - threading	Yes	
			4	ECC Support	Yes	
			5	Min. no. Memory Ch.	6	
			6	Manufacturer	Intel or AMD	
			B. Motherboard			1
			1	Compatibility	Based on processor	
			2	Processor Config	Dual	
			3	Min. no. Memory Ch.	6	
			4	Min. no. of DIMM slots	16	
			5	Chassis Form Factor	Rack	
			6	Min. no. of USB Ports	4	
			7	Min. no. of LAN ports	2 x 10GbE(network card can be included if inbuilt port not available), 1 GbE (mgmt port)	
			8	Min. PCIe 3.0/4.0 slots (total)	4	
			9	Min. PCIe 3.0/4.0 x16 Slots	2	
			10	RAID Configuration	One of RAID 0,1,5,10	
			11	Min. no. of M.2 slots	1	

			C. RAM						
			1	ECC Supported RAM	16 GB	4			
			D. Optical drive DVD-RW		either inbuilt or external	1			
			E. Graphics		Standard On board	1			
			F. Power Supply						
			1	Min. no. Redundant hot-swap Power Supply modules	2	-			
			2	Wattage	PSU should be able to power the motherboard components with further possible expansions (if additional RAM, GPU is added in future).				
			G. Storage						
			1	Minimum no. of hot swappable 3.5" HDD disk bays	12	-			
			2	Hard Disk	3.5" SAS 12G 12TB 7200RPM HDD	1			
			3	Boot Drive	Samsung 970 EVO Plus 500GB PCIeNVMe M.2 (2280)	1			
			2	Compute Node (Rack mountable with mountable rails)	1	A. Processor			
						1	Launch Date	After Q1-2019	1
						2	Min. no. of Cores	16	
						3	Hyper - threading	Yes	
4	ECC Support	Yes							
5	Min. no. Memory Ch.	6							
6	Manufacturer	Intel or AMD							
B. Motherboard									
1	Compatibility	Based on processor				1			
2	Processor Config	Dual							
3	Min. no. Memory Ch.	6							
4	Min. no. of DIMM slots	16							
5	Chassis Form Factor	Rack							
6	Min. no. of USB Ports	4							
7	Min. no. of LAN ports	2x 10GbE(network card can be included if inbuilt port not available), 1 GbE (mgmt port)							
8	Min. PCIe 3.0/4.0 slots (total)	4							
9	Min. PCIe 3.0/4.0 x16 Slots	2							
10	RAID Configuration	One of RAID 0,1,5,10							
11	Min. no. of M.2 slots	1							

			C. RAM			
			1	ECC Supported RAM	16 GB (64 GB total)	4
			D. Optical drive DVD-RW		either inbuilt or external	1
			E. Graphics		Standard On board	1
			F. Power Supply			
			1	Min. no. Redundant hot-swap Power Supply modules	2	-
			2	Wattage	PSU should be able to power the motherboard components with further possible expansions (if additional RAM, GPU is added in future).	
			G. Storage			
			1	Minimum no. of hot swappable 3.5” HDD disk bays	12	-
			2	Hard Disk	3.5” SAS 12G 12TB 7200RPM HDD	1
			3	Boot Drive	Samsung 970 EVO Plus 500GB PCIeNVMe M.2 (2280)	1
			3	Power cable and connectors	N/A	All power cables and connectors necessary to run the system.
4	Software	N/A	Ubuntu 18.04 LTS Server edition in both master and compute nodes.			
5	Warranty	N/A	A. Hardware: Bidder to include 3 years warranty for all hardware components in the quote.			
			B. Software: Bidder should provide complete software (Operating System) support for the warranty period.			
6	Other Terms		A. Bidder should provide support for installation and troubleshooting of software from authorized Developers under the project.			
			B. Bidder should provide at no additional cost, spare of good quality, before taking faulty hardware for repair/replacement.			
			C. Bidder should provide 3 year licence for all mandatory software required to run the system.			

7	Ethernet Switch	1	A. 8-port 10-Gigabit L2 Managed Switch	
			B. Necessary 10-Gigabit cables needed to connect all the applicable items in the proposed solution within 1-2 meters.	
8	Rack	1	Should fit the Ethernet switch, master and compute nodes and should allow for reasonable future expansion (24 U)	
9	UPS and Battery	1	UPS of appropriate specification with 1 hour battery back-up	
10	Add-on Hard Disk	4	3.5" SAS 12G 12TB 7200RPM HDD	
11	Add-on ECC Supported RAM	8	16 GB	