



INDIAN INSTITUTE OF TECHNOLOGY BOMBAY

MATERIALS MANAGEMENT DIVISION

Powai, Mumbai 400076.

Ref No.(PR No. 1000047443)

(Rfx No. 6100002197)

Technical Specifications : Add on storage system to expand existing Infortrend GS3000 series storage (Qty : 1)

Sr. No	Item Description	Detailed Technical Specification	Technical Compliance (Yes / No)	Additional Information (if any)
1	Add on storage system to expand existing Infortrend GS3000 series storage	<p>396TB RAW Capacity Dual Ctrl. Unified Storage Specification.</p> <p>Proposed storage must have minimum 12G SAS Drive side connectivity, 12G SAS internal data bus, 12G SAS expansion ports.</p> <p>Proposed storage should have symmetric active-active controllers, dual PSU and dual FAN module. System component like power supplies, cooling fans, controllers, host boards & storage drives should be modular in design to lower maintenance complexity.</p> <p>Proposed storage can be added in the cluster with the existing Infortrend GS3000 series Storage to increase the existing storage capacity.</p> <p>Each controller should have 1x Intel (4 core) or higher CPU</p> <p>Each controller should have at least 64GB of Ram and expandable upto 192GB or more per controller.</p> <p>Each controller should have 2x 25G SFP28 ports, Should have 2 numbers of replaceable modular Card Slot per controller and below Cards should be supported in each slot and possible to inter change</p>		

		<p>the card without the need to change or upgrade the storage controller</p> <p>"16Gb/s FC x 4, 32Gb/s FC x 2, 32Gb/s FC x 4, 10GbE (SFP+) x 2, 25GbE (SFP28) x 2, 12Gb/s SAS x 2"</p> <p>Has to be quoted with at least 4x25GbE front end (data) ports with 2 x 25G SFP Transceiver & should have at least 4x12G SAS ports or more for back-end ports.</p> <p>Support drives including SSD,SAS, SATA HDD in the same enclosure "2.5" SAS SSD, 2.5" 12Gb/s SAS 10,000 RPM and 15,000 RPM HDD 3.5" 12Gb/s NL-SAS 7,200 RPM HDD 2.5" SATA SSD, 3.5" 6Gb/s SATA 7,200 RPM HDD.</p> <p>Proposed storage should have true unified storage architecture. should support File, Block and Object storage within the same system and it should support Scale out feature with at least 4 appliances or more in single cluster (single namespace) without adding additional node, File Gateway or metadata controller for file level, cloud level access or for Scale out feature. All these protocols should be supported and licenses for full storage capacity should be quoted for the duration of the product</p> <p>lifecycle NFS, CIFS/SMB, AFP, FTP, SFTP, WebDAV, REST API, 1Gb/s, 10Gb/s and (RJ-45, SFP+), 10Gb/s FCoE, 8Gb/s, 16Gb/s Fibre Channel.</p> <p>Storage should be able to separate the File Level share folder control with file protocols for secure file sharing process (like share a folder on HTTP or FTP only and share another on CIFS or AFP only.</p> <p>Automated support request Proposed Storage should have option to automatically create support ticket with relevant logs with the OEM support in case of critical event.</p> <p>Storage Capacity: Should be quoted with minimum of 396TB Raw Capacity (22x18TB SAS 12G HDD) and 2x1.92TB SAS SSD with SSD Cache license.</p> <p>Storage should offer IDR or similar technology for superior RAID protection and recovery compared to generic RAID, which helps increase integrity and system efficiency while keeping data secure against errors and loss.</p>		
--	--	--	--	--

		<p>System should be scalable to minimum 800 drives via expansion enclosure per appliance and per cluster at least 3200 drives via scale-out.</p> <p>Support inbuilt file system which can support single volume size up to 2PB. License for full capacity should be quoted upfront</p> <p>Cloud - Support cloud provider: Amazon S3, Aliyun, Microsoft Azure, Openstack Swift, Google Cloud. If any additional hardware is required for cloud integration it should be quoted for the full capacity upfront.</p> <p>Cloud Disaster Recovery automatically make the hidden snapshot to cloud, allow administrator to use the last snapshot for roll-back.</p> <p>Support deduplication/compression feature before data migrate to cloud provider Storage should support Automated Storage Tiering, SSD Cache, Thin Provisioning, Volume Mirror/ Copy, Block level Remote replication, File level Remote Replication (Rsync), Snapshot.</p> <p>80 PLUS-certified power supplies delivering more than 80% energy efficiency Intelligent multi-level drive spin-down Relative humidity: 5 to 95% non-condensing, operating and non-operating</p>		
2	System Warranty	5 Years on-site warranty		