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DEPARTMENT OF BIOTECHNOLOGY
INDIAN INSTITUTE OF TECHNOLOGY – MADRAS, CHENNAI – 600 036

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D.KARUNAGARAN
Professor and Head   Date: 08.12.2014

Ref: BT/SS/2014/021/SPL **Dt. 08.12.14 Due Dt.24.12.14**

1. Quotations are invited in duplicate for the various items shown below/overleaf/ enclosed list.

2. The quotations duly sealed and super scribed on the envelope with the reference No. and due date, should be addressed to the undersigned so as to reach him on or before the due date stipulated above.

3. The quotations should be valid for sixty days from the due date and the period of delivery required should also be clearly indicated.

4. If the item is under DGS & D Rate Contract, Rate Contract Number and the price must be mentioned. It may also please be indicated whether the supply can be made direct to us at the rate contract price. If so, please send copy of the R.C. (Please note that we are not direct demanding Officers).

5. Relevant literature pertaining to the items quoted with full specifications (and drawing, if any) should be sent along with the Quotations, wherever applicable. Samples if called for should be submitted free of charges and collected back at the supplier's expenses.

6. Local Firms: Quotations should be for free delivery to this Institute. If quotations are for Ex- Go down, delivery charges should be indicated separately.

7. Firms outside Chennai: Quotations should be for F.O.R Chennai. If F.O.R. Consigner stationer freight charges by passenger train/lorry transport must be indicated. If Ex-Godown, Packing, forwarding and freight charges must be indicated.

8. The rates of Sales/General Taxes and the percentage of such other taxes legally livable and intended to be claimed should be distinctly shown along with the price quoted. Where this is not done, no claim for Sales/General Taxes will be admitted at any stage and on any ground whatsoever. **The taxes livable should take into consideration that we are entitled to have concessional sales tax applicable to non-government educational institutions run with no profit motive for which a Concession. Sales tax certificates will be issued at the time of final settlement of the bill.**

9. Goods should be supplied carriage paid and insured.

10. Goods shall not be supplied without an official supply order.

11. Payment: Every attempt will be made to make payment within 30 days from the date of receipt of bill/acceptance of goods, whichever is later.

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Desired Configuration For Storage Device

SI	Features	Description
1	Storage Enclosure	The Storage Enclosure should support for 28 TB (SATA HD)or more usable space(i.e. after RAID 6 space allocation). Also, free slots should be available for a future expansion of a minimum 8 TB (Raw storage space) in the same enclosure.
2	Cache	The Storage should have Minimum of 4GB Cache/Controller , Mirrored across both the controllers and with Battery Backup and destage to flash in case of Power failures
3	Host Connectivity	The storage shall be connected to existing Host in IIT Madras through atleast a 6Gbps SAS Connectivity. 2Nos of SAS HBA to be quoted for the existing host for connecting both the controller with necessary cables
4	Optional Connectivity	The storage shall be scalable to support 16Gbps FC or 10G iSCSI in the future
5	Controllers	The storage should have Dual Active/Active controllers with automated failover.
5	Raid Levels	Shall support Raid 0/1/5/6/10.The controller OS shall support Dynamic Migration of Raid Levels
6	Scalability	Minimum of 12 Drives in the base enclosure and Minimum of 12 Drives using external enclosures
7	OS Compatiblity	Should support for Microsoft Windows, All Major Linux Distributions, MAC OS and Vmware
8	Software Licensing	All software licenses for the following features that support storage shall be bundled with the storage system for the full capacity of the storage (i.e. No software charge for 8TB extra support).
9	Compatibility	Device will be connected to an existing server at IIT Madras and the vendor should take full responsibility to make it best compatible with the server (Intel Xeon Ivy bridge E5-2650v2). See link for more detail (https://cc.iitm.ac.in/node/203)
10	Warranty	A minimum of four years onsite warranty (at HPCE, IIT Madras).
	Optional Features (Desirable BUT NOT Compulsory. Vendors may consider submitting both quotations with and without these features)	
	Support Dynamic Disk Pool.	
	Support Automatic Rebuild to Hot spare in case of a drive failure	
	Support SMART utilities or Disk Scrubbing technologies	

Software Features

1	Storage shall support replication (Sync/Async) to remore storage box with the optional iSCSI Controller installed. Software for the same to be included
2	Storage shall support cloning of a storage volume with the storage box
3	Storage shall support point in time copies (Snapshots)
4	Software to enable dynamic rebalancing of drive count changes.
5	controllers have the ability to dynamically change the size of a logical volume
6	Storage shall have the capability to dynamically expand the size of the volume & capacity
7	The storage shall support Background Disk Check options
8	The Management console shall provide storage administrators ability to add and remove hosts and storage systems, monitor the health of the storage and report its high-level status, configure alert notifications, run scripts to perform batch management tasks. It shall also allow them to launch the applicable Array Management Window for a selected storage system to perform detailed configuration and management operations.