



NATIONAL INSTITUTE OF TECHNICAL TEACHERS' TRAINING AND RESEARCH
Taramani P.O., Chennai – 600 113.
(Government of India, Ministry of Human Resource Development)

Ref. No. NITTTR/DCSE/2018-19/

Date: 13.03.2019

To

Delivery required by :

QUOTATION DUE DATE

- (a) Please send your quotation within the due date on sealed envelope on or before:
Date: 25.03.2019
- (b) Delivery required at : **NITTTR, TARAMANI, CHENNAI -113**

Sl.No.	Description of Items	Quantity
1.	<p>Supply of Network-attached storage (NAS) as per the specification in Annexure -1</p> <p>Note :</p> <ol style="list-style-type: none">1. Mention warranty period for the item2. Indicate the Reference No. and the last date on the Envelope3. Our Institute is exempted from Customs duty.4. TIN/TNGST/CST Registration No. must be furnished (Enclose Pamphlets, if any)	01 no

Cover should be addressed to:

Dr. V. Shanmuganeethi,
Asst. Professor, Dept. of CSE
National Institute of Technical Teachers Training and Research,
Taramani P.O., Chennai – 600 113.

(For terms and conditions please see overleaf)

for DIRECTOR

Specification for Storage System

S.No.	Features	Qualifying Minimum Requirements
1	No. of Storage Units	1
2	Make Offered	
3	Model Offered	
4	Rack mount	NAS Controller Should be rack mounted with a form factor of not more than 2U
5	Processor	Dual processor of four Core each. Shall be Intel silver 4112 - 2.6Ghz with 8.25MB L3 Cache or higher.
6	Memory	32GB DDR4 RAM or higher, scalable to 384GB DDR4 RAM
7	Hard Drives	Shall be supplied with minimum of 50 TB RAW with NL SAS in Raid 5. Offered NAS Storage shall have separate dedicated SSD drives for Operating system in Raid 1+0. Hard drives shall be M2 form factor.
8	Storage expandability	1. Offered NAS controller shall support at-least 16 internal LFF Slots and shall be offered with at-least 12 LFF Slots. 2. Offered storage shall also have capability to attach additional drive enclosures. NAS shall support at-least 300TB of external capacity using 10TB drives.
9	Network Connectivity	Min. 4 X 1Gbps auto sensing NICs ports and shall be further scalable to additional 8 numbers of 10Gbps ethernet port.
10	Protocols support	TCP/IP, ISCSI, FTP, FTPS, CIFS/SMB 3.1.1, HTTP, HTTPS, NFS 4.1, WebDev etc.
11	Fault Tolerance for internal drives	Offered NAS shall support Raid 0, Raid 1, Raid 1+0, Raid 5 and Raid 6 for internal drives. Offered Raid controller shall have minimum of 4GB flash back write cache.
12	Fault Tolerance for external drives	Offered NAS shall support Raid 0, Raid 1, Raid 1+0, Raid 5 and Raid 6 for external drives. Supported Raid controller shall have minimum of 4GB flash back write cache.
13	Network Client Types Support	Should support Windows 10, Windows 2012, 2016, , HP-UX, AIX, SOLARIS, Linux etc.
14	Operating System	Microsoft Windows Storage Server 2016 - 64 bit edition (NAS optimized) including powered OS drivers

15	De-duplication	<p>Offered NAS shall have block based De-duplication which can be enabled for all required volumes. De-duplication engine shall have:</p> <ol style="list-style-type: none"> 1. Flexibility to decide the multiple schedules when de-duplication process can be run. 2. Flexibility to limit the time period of de-duplication process so that production operations remains intact. 3. Flexibility to bypass the recent files under the de-duplication process so that production operations remains intact. 4. License for De-duplication shall be provided. 5. Shall support more than 64TB of file system for de-duplication.
16	File screening and quota management	<ol style="list-style-type: none"> 1. Offered NAS shall have support for file screening so that administrator can ensure that users shall not be able to store unwanted files on offered NAS device. 2. Offered NAS shall have Quota management for both Volume and Directory. 3. Software for both File screening as well as Quota management shall be provided.
17	File Management	<ol style="list-style-type: none"> 1. Shall have flexibility to expire or move files to different folder / Location / Volumes / drives on the basis of policies like day of creation / modification / access of on the basis of file pattern like extension. 2. Shall also be able to expire or move files to different folder / Location / Volumes / Drives on the basis of content classification within files.
18	SAN storage (iSCSI based)	Integrated iSCSI for block access over LAN.
19	Snapshots	Point in time copies of your data to guard against data corruption.
20	Encryption and compression	Shall have support for encryption and Compression. License for both of same shall be offered.
21	Replication	Offered NAS shall also be supported with leading NAS replication software in the industry
22	Power Supply and FAN	Offered NAS shall also have Hot Plug redundant power supply and FAN

Terms & Conditions

1. The quotation must specify the period within which the supply could be effected from the date of receipt firm orders.
2. Quotation received after the due date mentioned on the reverse will not be considered.
3. Your quotations should be for materials strictly in accordance with the specifications shown. In case you are offering substitutes state clearly the exact specification etc, of the materials offered Drawing sketches or any other technical data should be submitted separately.
4. The prices quoted should clearly specify charges for delivery of the goods to destination indicated overleaf.
5. The prices quoted should include all packing costs and it will be assumed that packing materials (cases etc..) are non-returnable unless otherwise stated.
6. Sales tax or any other taxes if applicable should be shown separately giving the full rate of taxes for each items giving ex-incidence of such levies.
7. The Director reserves the right to accept the whole or part of any quotation without assigning any reason and the lowest or any quotation will not necessarily be accepted, and the Director's decision shall be the final.
8. Samples must accompany the quotation when so specified or within two days when asked for later.
9. If it is discovered that the materials supplied are not exactly according to the specification, the entire stock will be rejected.
10. We reserve the right to inspect the goods offered at any stage of manufacture / supply at your premises.
11. Any dispute arising out of or relating to this Enquiry shall be deemed to have arisen in Madras and is subject to adjudication of the Madras Courts.
12. Rates quoted once will remain firm for that particular dealing.
13. The quotation should be kept valid for a period of 60 days from the date of opening for acceptance.
14. Payment will be made after confirmation on receipt of the materials in good condition at this Institute (normally within 30 days.) Advance payment will not be entertained at any circumstances.
15. Printed conditions of the firm sent along with the quotation form if any, shall not be binding on us.
16. In case of Printing the Proof should be got approved before final strike.
17. Materials should be supplied at this institute in good condition.
18. Price quoted by the suppliers accepted by the Director is final, and no deviation therefrom will be accepted without the Director's agreement in writing.
19. If the rates are under D.G.S. & D. Please specify the same clearly enclosing necessary documents.