IN THE HIGH COURT OF DELHI AT NEW DELHI

F.No.559/Comp./DHC_____ 9661

Dated: _____ 7/5/18

From

      The Registrar General
      Delhi High Court
      New Delhi

To

      (On the Website of High Court)

Sub: Quotation for three nos. of NAS of 80 TB each

Sir,

      This Court intends to purchase three nos. of NAS devices of 80 TB each, with at least five years Original Equipment Manufacturer (OEM) onsite warranty from the manufacturers of NAS operating in India. Necessary minimum specifications are enclosed herewith as Annexure-A
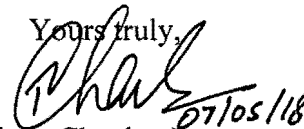
      Authorized vendor(s) are requested to go through the specifications enclosed and submit quotations accordingly, in a sealed envelope to AOJ (IT), Room No.6, Ground Floor, Lawyer Chamber Block-III, Delhi High Court on or before 28-05-20⁴The warranty of the NASs should be clearly mentioned in your quotation. The offered NAS should be as per the specifications enclosed. The validity of the rates should not be less than six months.

      The envelope should be addressed in the name of "The Registrar General, Delhi High Court, New Delhi," and the subject of this letter be superscribed on the envelope. No quotation shall be entertained after due date.

      The envelopes without subject shall be summarily rejected.

      It may be noted that the rates should be mentioned as **inclusive of GST.**

Yours truly,

07/05/18

(Rajeev Chauhan)
Deputy Registrar (IT/Sty./Dig.)
For Registrar General

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CC to:- AR (Technical), Delhi high Court.- for uploading the same on the Website of this Court.

(K. S. Bisht)
Administrative Office (Judl.)(IT/Sty.)

Tech specifications of Storage Solution (for NAS and software)

1. **Capacity** – 3 NAS of 80 TB ~~each~~ each, scalable upto 150 TB
2. **Memory** – Minimum 24 GB ECC per controller / node
3. **Controllers & Architecture** – Fully symmetric & distributed clustered architecture for scale=out NAS operations. Minimum 2 controllers / nodes to be provided. In case backend controllers are separate, the solution needs to have minimum 2 backend controllers as well. Should be upgradable to minimum 24 controllers / nodes seamlessly, without any downtime / disruption to production.
4. **Network port** – Each controller / node should have 2 ports of 1GbE and 2 ports of 10GbE for client connections.
5. **Disk type** – Minimum 4 TB or higher NL-SAS/SATA drives with 7200 RPM or higher. Should have capability to support different types like SSD/SAS/SATA drive pools as same file system in same storage cluster.
6. **Operating System** – Fully journaled and distributed, dedicated to serving data efficiently and customized for scale-out NAS
7. **Throughput Requirements**
   a. Sustained Aggregate sequential performance pf 1000MB/s, 70:30 read:write, 1MB block size. To be demonstrated using 3rd party apps like IOmeter, IOzone
   b. Not more than 25% impact in system performance in case of component failure, to be demonstrated as a part of UAT
   c. Should not require downtime or migration activity for capacity / performance enhancement
   d. Existing data to be automatically rebalanced across all nodes/controller, in case of addition of controller/node. Auto-balance with low priority to negate performance impact. Addition of controller/node should be simple, seamless, without impact to user access
   e. Scale-out NAS to protect data against simultaneous 2 disk failures, and sustain any controller/node failure
   f. Data to be striped across all controllers/nodes and support OS disk redundancy without reboot
   g. Backend connectivity should be redundant high performance infini band or 10GbE network
   h. Redundant, hot swappable modules: controllers, disk drives, power supplies
   i. Solution to be fully redundant, in High Availability mode
8. **Protection**
   a. Protect data against simultaneous 2 disks, and/or controller/node failures
   b. Change protection level on-the-fly
   c. Protection level on cluster, directory and/or file level
   d. Policy based retention and protection against accidental deletion and/or deliberate tampering, should be a native feature or the file system based OS. Should enable long-term, tamper proof data retention in compliance with regulation and guidelines. Ability to create write-once-read-many (WORM) directories
   e. Should support tamper-proof, long-term data retention through an integrated hardware and software solution as native feature of the solution, in compliance with US SEC Rule17a-4
9. **Software Features**
   a. Integrated automatic RAID manager, alerts, DNS, SNMP. Auto error reporting through SMTP
   b. Management console for both hardware and software with WebUI & CLI interface to monitor status & health, through a web based GUI compatible with all popular browsers
10. **Others Specifications**
    a. Network protocol support: CIFS, NFS versions 3 & 4, SNMP, SMTP, NTP, HTTP, FTP Folder and File Level Access Control Lists (ACL) security for users & groups. Support user security mechanisms like AD,LDAP, NIS. Perpetual license to be provided for all protocols.
    b. Support Linux, Windows Server 2003/2008, Windows XP/7, Unix based OS like Oracle Solaris and HPUX
    c. Load balancing capability across controllers/nodes to avoid performance hotspot
    d. File Locking for data protection while sharing files between different OS users
    e. Single copy data sharing between different OS using CI FS and NFS
    f. In case of disk failure, all resources of cluster including all disks, CPU and memory should take part in rebuild of data. To be demonstrated as a part of UAT
    g. Storage solution must be in the Leader quadrant in latest Gartner Magic quadrant report for distributed file system and object storage arrays
    h. 5 years comprehensive onsite warranty