

दूरभाष/Tele : 0532-2421877, 2421879, 2421880
फैक्स/Fax : 0532-2421869, 2423549
ई-मेल/E-mail : cda-albd@nic.in
वेबसाइट/Website : http://pcdapension.nic.in
प्रबन्धक/EDP&System Manager
दूरभाष/Tele : 0532-2421868



संगणक केन्द्र
EDP Centre
कार्यालय रक्षा लेखा प्रधान नियंत्रक (पेंशन)
द्रौपदी घाट, इलाहाबाद - 211014
O/o The Principal Controller of Defence Accounts (Pensions)
Drapadi Ghat, Allahabad-211014

**REQUEST FOR PROPOSAL
FOR
SUPPLY, INSTALLATION, TESTING AND COMMISSIONING
OF
STORAGE AREA NETWORK AND TAPE LIBRARY**

RFP NO EDP/46/PC/2017-18/Vol-I

DATED: 22/12/2017

**Request for proposal (RFP) for supply, installation, testing and commission of
Storage Area Network (SAN) and Tape Library at EDP Centre of Principal
Controller of Defence Accounts (Pensions) Draupadi Ghat Allahabad - 211014**

Introduction

The Office of the Principal CDA (Pensions) is centrally responsible for:

- Sanction of pensionary benefits/awards to Armed Forces Personnel (i.e. Commissioned Officers and JCO/ORS in the Army and their families) and also Defence Civilians and their families (including DAD, Coast Guard and GREF Personnel and their families).
- Sanction/revision of all types of pensionary awards of Naval & Air Force personnel discharge/died prior to 1.11.85. (Cases falling on or after 1.11.85 are being done by PCDA (Navy) Mumbai and Jt CDA (Air Force), Delhi.
- Family pension in respect of Army personnel discharged/died, irrespective of period involved is done by the PCDA (P) Allahabad.
- Audit of Payment of pensions to Defence pensioners made by various Pension Disbursing Agencies all over India as also through agencies located ex-India.
- Compilation of all payment related to Defence pension.
- Maintenance of Pension Circulars/Pension Payment Orders since 1902 onwards. +
- Settlement of complaints received from various sources
- Holding Defence Pension Adalats.

Background

To cater to the above work, this office has 8 servers housed in two Server Rooms. Out of 8 servers Two High End servers are presently being used.

During upcoming pension projects, particularly implementation of 7th CPC where issue of Corrig. E-PPO to approximately 25 lakhs pensioners and implementation of e-PPO consisting of a pair of PDF and XML files is involved, storage of e-data is felt necessary. For storage of revision e-PPO, and fresh e-PPO and pension related document a need of SAN with Fiber connectivity for optimum speed has arisen. For backup of precious data hosted on servers, need of Tape Library has also been felt necessary.

Instructions for the Bidders

1. PCDA (P) on behalf of President of India invites Bids in sealed cover on TWO BID SYSTEM (Technical & Financial) for supply, installation, testing and commissioning of one Storage Area Network (SAN) and one Tape Library as per the 'Schedule of Requirements' at Part-II of this RFP from the manufacturer of IT hardware or authorized Indian suppliers of these hardware/software. Authorization letters from the Original Equipment Manufacturers (OEMs)/software copy right holders to this effect should be furnished. The bidder should have exclusive country-wide service/support infrastructure for after-sale support and maintenance of offered hardware / software items in all the major Indian cities. Details of service/support network (addresses, names of contact persons, phone numbers etc.) must be furnished as part of the bid.

(Please super scribe the above mentioned Title, RFP number and date of opening of the Bids on the sealed cover to avoid the Bid being declared invalid.)

2. Pre - Qualification Criteria

- a) Only manufacturer(s) or their sole authorized distributor / agent are eligible to bid. Authorization letter in the prescribed format (Appendix - 'H') from Original Equipment Manufacturer (OEM) in favor of authorized Agent to bid / negotiate / conclude the order against this tender, must be enclosed with technical bid.
- b) The tenderer should have experience for supply & successful installation of goods of similar specifications.
- c) Annual turnover of the tenderer for each of the last financial year should not be less than Rs.40,00,000/- (Rupees forty Lakhs). Financial statements with net profit, duly audited / certified by Chartered Accountant (CA) of the last financial year should be submitted with the tender documents.
- d) The tenderer should not have been debarred or blacklisted by any Central / State Government Departments of India. A declaration in this regard by the authorized person should be submitted as per Appendix - 'J'.
- e) Signed & stamped compliance sheet (Appendix-M) of the technical specification of the goods with technical printed literature along with Bill of Material (BoM) mentioning all the terms & conditions clearly, must be enclosed with the technical bid.

- g) Tenders should state categorically whether they have fully trained technical staff for installation / commissioning of the equipment and efficient for after sales service.
- h) The tenderer viz. the Indian Agents and / or the foreign firms should furnish along with the financial bid a certificate that the rates quoted by the tenderer are the same as are being charged from other Government Department / Institutions for similar items.
- i) The tenderer shall submit the copy of the tender document and addenda thereto, if any, with each page should be signed and stamped to confirm the acceptance of the entire term & conditions of the tender.

The tender of any tenderer, who has not complied with one or more of the conditions of prequalification criteria and / or fail to submit the required documents in prescribed format as mentioned / or required /or conditional tender are liable to be summarily rejected.

3. The address and contact numbers for sending Bids or seeking clarifications regarding this RFP are given below -

Sl no.	Description	Values
A	Bids/queries to be addressed to	ACDA (IT&S) IT & S Wing, PCDA(P)
B	Postal address for sending the Bids	IT & S Wing, Office of Principal Controller of Defence Accounts (Pensions), Draupadi Ghat, Allahabad - 211014, Uttar Pradesh, India.
C	Name/designation of the contact personnel	i) Deepak Das, Accounts Officer ii) D. K. Singh, Astt. Accounts Officer
D	Telephone numbers of the contact personnel	0532-2421868 0532-2420427 0532-2421880
E	e-mail ids of contact personnel	pcdapedp.cgda@nic.in deepakdas.dad@hub.nic.in
F	Fax number	0532-2421869 0532-2423549

3. This RFP is divided into five Parts as follows:
- Part I - Contains General Information and Instructions for the Bidders about the RFP such as the time, place of submission and opening of tenders, Validity period of tenders, etc.
 - Part II - Contains essential details of the items/services required, such as the Schedule of Requirements (SOR), Technical Specifications, Delivery Period, Mode of Delivery and Consignee details.
 - Part III - Contains Standard Conditions of RFP, which will form part of the Contract with the successful Bidder.
 - Part IV - Contains Special Conditions applicable to this RFP and which will also form part of the contract with the successful Bidder.
 - Part V - Contains Evaluation Criteria and Format for Price Bids.
4. This RFP is being issued with no financial commitment and the Buyer reserves the right to change or vary any part thereof at any stage. Buyer also reserves the right to withdraw the RFP, should it become necessary at any stage.

The following enclosures are forwarded along with this enquiry to assist you in preparing your Technical and Commercial offer:

S/no.	Description	Refer to
1	General Information about Time and manner of submission of Bids	Part I of RFP
2	Schedule of Requirement and Scope of Work	Part II of RFP
3	Standard Condition of RFP formulating Contract	Part III of RFP
4	Special Condition of RFP formulating Contract	Part IV of RFP
5	Evaluation criteria	Part V of RFP
6	Format of Technical Bid	Appendix A
7	Format of Commercial Bid	Appendix B & Appendix L
8	Performance Guarantee Format	Appendix C
9	Bid Security (EMD) format	Appendix D
10	ECS Mandate format	Appendix E
11	Declaration about fraud and corrupt practices	Appendix F
12	Format of Letter of acceptance of Standard and special condition of Request of proposals	Appendix G
13	Format for Manufacturer s Authorisation letter to Agent	Appendix H

14	Declaration regarding Blacklisting/Debarring	Appendix J
15	Certificate of Guarantee/Warranty	Appendix K
16	Compliance Statement	Appendix M
16	Check list	Appendix N

Part I - General information

1. **Last date and time for depositing the Bids:** 12 Jan 2018 12:00 Hrs (IST)

The sealed Bids (both technical and Commercial) should be deposited / reach by the due date and time. The responsibility to ensure this lies with the Bidder. The Bids are to be submitted in two parts in separate sealed envelope under one bigger sealed envelope in the following manner:-

(a) Technical Bid and Earnest Deposit money (EMD) in one sealed envelope marked “Technical Bid” and

(b) Financial / Commercial Bid - in another sealed envelope duly marked as “Financial Bid”.

All these sealed envelopes have to be put in a bigger sealed envelope super-scribed as **“Tender Document for supply, installation, testing and commissioning of Storage Area Network and Tape Library”**. The bigger envelope is to be addressed to:

IT & S Wing,

Office of Principal Controller of Defence Accounts (Pensions),

Draupadi Ghat, Allahabad - 211014, Uttar Pradesh, India.

Note: - if the EMD is not received or is not in order, the Technical bid will be rejected.

2. **Manner of depositing the Bids:** The above mentioned bigger envelope containing Sealed Bids should be either dropped in the Tender Box marked as Tender Box for Supply, installation, Testing and Commissioning of Storage Area Network and Tape Library at EDP Centre, PCDA(P) Allahabad or sent by registered post at the address given above so as to reach by the due date and time. Late tenders will not be considered. No responsibility will be taken for postal delay or non delivery / non-receipt of Bid documents. Bids sent by FAX or e-mail will not be considered (unless they have been specifically called for by these modes due to urgency).
3. **Time and date for opening of Bids:** Technical Bid is scheduled to be opened on 12 Jan 2018 16:00 Hrs. (If due to any exigency, the due date for opening of the Bids is declared a closed holiday, the Bids will be opened on the next working day at the same time or on any other day/time, as intimated by the Buyer). Date of opening of Financial Bid is scheduled on 25 Jan 2018 16:00 Hrs, whereas date and time for opening of financial bids would be intimated on or after approval of Technical BID by CFA or date scheduled mentioned whichever is later.

4. **Location of the Tender Box:** IT&S wing, PCDA (Pensions) Allahabad. Only those Bids that are found in the tender box will be opened. Bids dropped in the wrong Tender Box will be rendered invalid.
5. **Place of opening of the Bids:** Conference Hall / Chamber of ACDA, IT & S, O/o the PCDA (P) Allahabad. The Bidders may depute their representatives, duly authorized in writing, to attend the opening of Bids on the due date and time. Rates and important commercial/technical clauses quoted by all Bidders will be read out in the presence of the representatives of all the Bidders. This event will not be postponed due to non-presence of any bidder representative.
6. **Two-Bid system:** Only the Technical Bid would be opened on the time and date mentioned above. Date of opening of the Commercial Bid will be intimated after acceptance of the Technical Bids. Commercial Bids of only those firms will be opened, whose Technical Bids are found compliant/suitable after Technical evaluation is done by the Buyer.
7. **Forwarding of Bids** - Bids should be forwarded by Bidders under their original memo / letter pad inter alia furnishing details like TIN number, GST number, Bank address with EFT Account if applicable, etc and complete postal & e-mail address of their office.
8. **Clarification regarding contents of the RFP:** A prospective bidder who requires clarification regarding the contents of the bidding documents shall notify to the Buyer in writing about the clarifications sought not later than 14 (fourteen) days prior to the date of opening of the Bids. Copies of the query and clarification by the buyer will be sent to all prospective bidders who have received the bidding documents.
9. **Amendment of RFP:** At any time prior to the date of submission of Bids the Buyer may, whether at his own initiative or in response to a clarification requested by a prospective Bidder, may modify bid documents by amendments. The amendments shall be notified in writing to all prospective bidders. In order to afford prospective bidders a reasonable time to take the amendments in to account in preparing their bids, the buyer may, at his discretion, extend the deadline for submission of bids.

- 10. Modification and Withdrawal of Bids:** A bidder may modify or withdraw his bid after submission provided that the written notice of modification or withdrawal is received by the Buyer prior to deadline prescribed for submission of bids. A withdrawal notice may be sent by fax but it should be followed by a signed confirmation copy to be sent by post and such signed confirmation should reach the buyer not later than the deadline for submission of bids. No bid shall be modified after the deadline for submission of bids. No bid may be withdrawn in the interval between the deadline for submission of bids and expiration of the period of bid validity specified. Withdrawal of a bid during this period will result in Bidder's forfeiture of bid security.
- 11. Clarification regarding contents of the Bids:** During evaluation and comparison of bids, the Buyer may, at its discretion, ask the bidder for clarification of his bid. The request for clarification will be given in writing and no change in prices or substance of the bid will be sought, offered or permitted. No post-bid clarification on the initiative of the bidder will be entertained.
- 12. Rejection of Bids:** Canvassing by the Bidder in any form, unsolicited letter and post-tender correction may invoke summary rejection with forfeiture of EMD. Conditional tenders will be rejected.
- 13. Unwillingness to quote:** Bidders unwilling to quote should ensure that intimation to this effect reaches before the due date and time of opening of the Bid, failing which the defaulting Bidder may be delisted for the given range of items as mentioned in this RFP.
- 14. Validity of Bids:** The Bids should remain valid till 120 Days from the last date of submission of the Bids. A bid valid for shorter period can be rejected by the buyer, as being nonresponsive. In exceptional circumstances the buyer may request the consent of the bidder for an extension to the period of bid validity. Such requests shall be in writing. The bid security provided shall also be suitably extended. A bidder accepting the request and granting extension shall not be permitted to modify the bid.
- 15. Late Bids:** Any Bids received by PCDA (P) after the deadline for submission of bids prescribed by PCDA (P) will be rejected and / or returned unopened to the bidder.

16. **Agents of Bidder:** One agent cannot represent two bidders or quote on their behalf in a particular tender enquiry. Such quotes should be rejected.
17. **Cost of Bidding:** The bidder shall bear all costs associated with the preparation and submission of its bid. PCDA (P) will in no case be responsible or liable for these costs, regardless of the conduct or the outcome of the bidding process.
18. **Earnest Money Deposit:** Bidders are required to submit Earnest Money Deposit (EMD) amounting to Rs. 60,000/- only along with their bid. The EMD may be submitted in the form of an Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee from any of the public sector banks or a private sector bank authorized to conduct government business as per Form DPM-16 (Available in MoD website and can be provided on request). EMD is to remain valid for a period of forty-five days beyond the final bid validity period. EMD of the unsuccessful bidders will be returned to them at the earliest after expiry of the final bid validity and latest on or before the 30th day after the award of the contract. The Bid Security of the successful bidder would be returned, without any interest whatsoever, after the receipt of Performance Security from them as called for in the contract. EMD is not required to be submitted by those Bidders who are registered with the Central Purchase Organization (e.g. DGS&D), National Small Industries Corporation (NSIC) or any Department of MoD or MoD itself. The EMD will be forfeited if the bidder withdraws or amends, impairs or derogates from the tender in any respect within the validity period of their tender.

Part II - Essential Details of Items / Services required

1. **Schedule of Requirements** - Supply, Installation. Testing and Commissioning of the following items are required-

Sl No.	Items	Requirement
01	Storage Area Network	01
02	Tape Library	01
03	KVM Switch	01
04	42U Rack	01
05	SAN Switch	02

2. **Delivery and Installation:**

i) The bidder shall have to complete the supply of equipment's as contained in the letter of award within 3 (Three) weeks from the date of issue of Letter of Award at PCDA(P), Allahabad.

ii) The bidder has to complete Installation, testing and commissioning of the equipment's as well as their handing over in faultless working conditions including system integration within 2 (two) weeks from the date of receipt of material on the respective sites.

iii) Extension of Supply Ordered period will be at the sole discretion of the Buyer, with applicability of LD clause

3. **Satisfactory Installation:** The satisfactory Installation, Testing, Commissioning and Handing over of the equipment's means the faultless functioning including system integration of all the equipment's for a minimum period of 15 (fifteen) days from the date of handing over the same to PCDA(P) after installation. The entire work as stipulated in the tender document is to be completed within 5 (Five) weeks from the date of issue of letter of award.

4. **Guarantee / Warranty:**

(a) The bidder must be quoted with **03 (three) years comprehensive onsite Warranty / Guarantee** which shall be considered from the date of Completion of the defect liability period as prescribed by Original Equipment Manufacturer. The prescribed format for Guarantee/ Warranty may be refer at Appendix-K.

(b) **Downtime (period during which the system is not functional):** During the warranty period downtime up to maximum of 2% (two) in a block of 365 (Three

Hundred & Sixty Five) days shall be permissible. In case it is observed that downtime is above 2% in a block of 365 days then penalty 0.1% (Zero point One Percent) of the order value for each hour subject to maximum of 5% (Five Percent) of the order value may be imposed and recovered from the due payments of the contractor or Performance Security/Performance Guarantee as the case may be. Downtime will be counted from the date and time of the filing of complaint.

5. **Training of Personnel:** The successful bidder shall be required to provide the technical training for 05 (Five) number of personnel at PCDA (P), immediately after completing the installation of the equipment's for a minimum period of 10 (Ten) man-days (Minimum 4 hours per day) at the cost of bidder.
6. **Tender Preparation Expenses:** The bidder shall solely bear all costs associated with the preparation and submission of the bid. The PCDA (P) shall in no case be responsible or liable for such costs, regardless of the conduct or outcome of the tender process. In no case, such costs shall be reimbursed by the PCDA (P).
7. **Technical Literature & Manuals:** The Successful bidder whom the work shall be awarded has to submit 2 (two) sets of the following technical literature & manuals for reference & record of PCDA (P).

Sl. No.	Description of Literature	Purpose	Remarks
1.	Installation manual of the equipment's	For installation purposes of various equipment's under the scope of contract	
2.	Operation and maintenance manual	For major and minor maintenance including operation of equipment's	
3.	Part list/ catalogue	For ordering spares	
4.	Any other manual/ literatures to be required for satisfactory installation, testing, commissioning & operation and maintenance of the equipment's.	For information	
5.	The Prescribed life cycle of the equipment as per manufacture code	-----do---	
6.	Any other manual/technical document which tenderer considers that the same is necessary for operation and maintenance including testing and commissioning. However, literature on system integration of the equipments has to be enclosed compulsorily.	-----do ----	

8. **Terms of delivery:** F O R Destination: Office of the PCDA (P), EDP Centre, Allahabad, UP-211014.
9. **Failure and Termination:** If the supplier fails to deliver the stores in full or any installment thereof within the period fixed for such delivery or at any time repudiates the order before the expiry of such period, the purchaser may without prejudice to the right of the purchaser to recover damages for breach of the contract, recover from the supplier as agreed Liquidated Damages including administrative expenses and not by way of penalty a sum equivalent to 0.5% of the prices of any stores which the contractor has failed to deliver within the period agreed for delivery in the contract, for each week or part thereof during which the delivery of such stores may be in arrears, where delivery thereof is accepted after expiry of the aforesaid period. The total damages shall not exceed value of 10% of undelivered goods. The LD cannot exceed the amount stipulated in the contract.
10. **Bill of Material**

Sl. No.	Item List	Approximate Quantity in units	Specifications of the items
1	SAN Storage (as per Part-1 of detailed technical specifications here under)	1 (One)	Refer 10.1 of Part-II
2	Tape & Backup with backup software (as per Part- of detailed technical specifications here under)	1 (One)	Refer 10.2 of Part -II
3.	KVM Switch (as per Part-5 of detailed technical specifications)	1 (One)	Refer 10.3 of Part -II
4.	RACK 42U	1(One)	Refer 10.4 of Part -II
5.	SAN Switch	2 (Two)	Refer 10.5 of Section-II

10.1 Technical Specifications of SAN Storage

Sl. No.	Item	Description with Specification
1	Make	--Specify--
2	Model	--Specify--

3	Controllers	Redundant, hot-pluggable Active-Active array Controllers Or The Storage system must have at least two controllers running in an active-active mode with automatic failover to each other in case of one controller fails for both NAS(CIFS, NFS) and SAN(iSCSI & FCP). Proposed architecture should scale out upto minimum 8 controllers. In case of active-passive NAS gateways, configure minimum 3 gateways.
4	Host Interface	8 Nos of FC Host Parts @ 8 Gbps or higher or 4 Nos of 10 Gb iSCSI parts or 4X 16Gb FC and 4X 10Gb iSCSi
5	Drives Interface	The storage shall support 6Gbps SAS and NL-SAS drives. It should also support SSD drives.
6	RAID	The system should support 0, 5, 6, 10 or equivalent.
7	Fans and Power Supplies	Redundant, hot-swappable
8	Cache Memory	32GB across dual controllers Or 64 GB usable cache across the two controllers with ability to protect data in cache if the system fails and it results into controller failure. The cache on the storage should have 72hrs or more battery backup.
9	Cache Protection	Cache should be mirrored between the Active-Active controllers (load balancing). The paths should be redundant (at least 2 paths) to prevent disruption if one path fails. Must support either Cache battery backup or any equivalent mechanism to safe guard data
10	No single point of failure Architecture	Storage Array should be configured in a No-Single-Point-of-Failure Architecture.
11	OS Support	Support for industry-leading Operating System platforms including: LINUX, Microsoft Windows, HP-UX, SUN Solaris, IBM-AIX, etc. It shall support connecting hosts over iSCSI and shall be supplied with any Multi-pathing software if required with the solution. Or Industry leading Operating System platforms including: Windows Server® 2008, Windows 2012, Sun Solaris®,

		HP-UX®, IBM- AIX®, Linux® 2.6 and above, RHEL-5®, VMware®, Hyper-V®.
12	storage capacity	The storage shall support SSD, SAS and SATA based disks simultaneously The storage should be provisioned with 10TB Usable capacities (after RAID 5 configuration) on max. of 900 GB or higher SAS disk of minimum 10K RPM (SFF). The complete solution should come in 6U or less.
13	Storage Built-in functionality	<p>a) The storage shall have the ability to combine multiple RAID Groups into a single entity so as to create LUNS/Volumes using Multiple RAID Groups and hence from the single entity to give maximum performance to all the applications being served from these disks.</p> <p>b) The storage shall have the ability to expand and shrink LUNS/Volumes on the storage online and instantly.</p> <p>c) The offered storage array shall have support for thin provisioning and deduplication (Block as well as file) and compression. All the licenses for the same should be configured for the total capacity supported by the storage.</p> <p>d) The storage shall support security features like LUN masking, Zoning and the storage controller should have an ability to be divided into multiple logically separate controller and each logically separate controller should have separate admin rights. This functionality is required to create secure tenant environment for various application/workload/user department.</p> <p>e) The storage shall support standard storage (SAN & NAS) security features.</p>
14	Array Management	<p>Entire system must be manageable from a web-based single, secure interface without requirements for a separate management device or server.</p> <p>Entry-level system must have same management platform as the manufacturer's largest system in order to allow system expansion without learning curves in the future.</p> <p>Management system must include comprehensive online and remote monitoring abilities without third party hardware or software.</p> <p>At-a-glance, comparable views of current aggregate capacity statistics and overall storage resource objects for all SANs of same series from the vendor or The system should support RAID 5, RAID1+0/RAID6 or equivalent RAID technologies</p>
15	Protocols	The storage shall be provided with FCP, iSCSI, NFS and

		CIFS protocols for use with different applications and avoid any protocol related buying in future. Any hardware/software required for this functionality shall be supplied and external appliance should have high availability architecture for data and management
16	Controller software and Non-Disruptive Upgrade	Firmware should be upgradeable for functionality improvement and enhancements. Must support non-disruptive upgrade of core software, BIOS, snapshot, clone, remote mirroring and management software without shutting down the storage system. All host attached servers must remain fully operational during system level or maintenance upgrade procedures.
17	Information Life Cycle Management	The SAN must be able to provide automatic classification of data with no third party products. Data must be automatically moved in a Bi-Directional manner Software must be able to be managed within a single pane of glass. Data must be moved at the block level.
18	Thin Provisioning	Storage should support Thin Provisioning and licenses for the same should be provided from day one for <div style="text-align: center;"> <p>The diagram shows two virtual machines, VM 1 and VM 2, at the top. VM 1 is connected to a 'THICK' virtual disk of 40GB. VM 2 is connected to a 'THIN' virtual disk of 40GB. These two virtual disks are shown as a single unit with a total 'used capacity' of 80GB. The 'provisioned capacity' is shown as 20GB. Below this, two physical disks are shown as 'datastore' with 20GB and 40GB capacities.</p> </div> configured capacity.
19	Licensing	All licenses on the storage system must be provided for the offered capacity supported by the system from day one.
20	Availability	System should have redundant hot swappable components like disks, power supplies, fans etc.
21	Data protection	The storage shall also snapshots. License for the same should be provided from day one for configured capacity. Also license to restore snapshot should be provided.
22	Storage based Replication	Must support synchronous and Asynchronous replication.
23	Front-End & Back-End connectivity	The offered storage shall have minimum 4 X 12 Gbps Host ports, 8 X 1 GbE, for Ethernet and iSCSI connectivity. The system shall also be configured with 4 x 6Gbps Wide SAS ports for disk connectivity.

24	Scalability	The storage should be scalable to minimum 30 drives per array group or raid group for better performance
25	Upgradeability / Investment Protection	The proposed system should be field upgradeable to a higher model in the family with or without controller upgrade through data-in-place upgrades without requiring forklift upgrade and without requiring replacement of the disk shelves.
26	Storage Management	<p>Easy to use GUI based and web enabled administration interface for configuration, storage management. The Storage GUI should report any the lag between the primary and the DR storage in addition to sending alerts to the user.</p> <p>The storage management GUI should allow managing more than one single system from the GUI and even remote systems. Performance monitoring tool or software should be provided and the same will need to be licensed for the full capacity and maximum servers supported by the array.</p>
27	Remote Diagnostics/ Maintenance	The proposed system should support Web based, Email facility for remote service & also support dial-in / dial-out to report errors and warnings.
28	AC Power	200-240VAC,50Hz
29	Form factor	The proposed system must be Blade chassis based or rack mounted
30	Bill of Material	The vendor has to give part nos. of every component, which will be cross verified with OEM.
31	Warranty support	All HW & SW should be quoted with 3 year of comprehensive warranty including software update and upgrades. Should be provided by OEM 24X7 with maximum 6 hour onsite.
32	Backup Solution	A Solution for an efficient backup & restoration for the entire storage system should be provided. The backup solution should support both snapshot based backups and also full and incremental backups. The backup would be on separate storage and PCDA (P) will provide the separate storage capacity on different storage box. Any other Hardware, Software to run this backup solution should be included as part of bidder's offering along with the storage solution with detailed description.

10.2 Technical Specifications of Tape & Backup with Backup software

Sl. No	Item	Description with Specification
1	Tape Library	<p>i) Tape Library with One LTO7 Drive Scalable to 2 Drives.</p> <p>ii) Tape library should have at least 24 Media slots</p> <p>iii) Tape library should be Supplied with One Cleaning Cartridge & 10 LTO6 Media Cartridges</p> <p>iv) System should support SNMP.</p> <p>v) Should support data integrity check</p> <p>vi) Tape Library should be Rack mountable.</p> <p>vii) Backup software to take back up from storage directly for a minimum of 5No. of Hosts & One tape Drive with SAN Based Backup license</p> <p>viii) Should be compatible with all industry standard backup applications.</p> <p>ix) Software provided with the Tape Library should be capable of taking incremental, decremental and complete backup and necessary licence for the software should be provided.</p> <p>x) All kinds of reading mode of Bar Code should also be provided with Bar Code levels.</p>
2	Warrant	Three Years Onsite Comprehensive Maintenance for both Hardware and Software (24/7).

10.3 Technical Specifications of KVM Switch

Sl. No.	Item	Description with Specification
1.	Computer Connections	Direct- 8 Max- 64 (via Cascade)
2.	Port Selection	OSD(On Screen Display), Hotkeys, Front panel Push Buttons
3.	Connectors/ Power	Keyboard, Video, Mouse, 1xRJ-11 (female), 1XDC Jack
4.	Switches	8xPushbutton
5.	LEDs	Separate for Online, Selected and Power
6.	Keyboard/ Mouse	PS/2, USB
7.	Video	Resolution of 2048x1536 or better
8.	Power consumption	DC less than 6 Volts; less than 6 watts

9.	Weight	Less than 2 Kgs
10.	Dimensions	Rack mount (19"system rack, 1 U)
11.	Warranty	Three Years Onsite Comprehensive Maintenance for both Hardware and Software (24/7) after the expiry of warranty (Optional)

10.4 Rack specification

Sl. No.	Item	Description
1	Server Racks	42 U Industry Standard Rack with following :
		<p>a) 2 nos. of full height 32 Amp PDU housing min. 12 power distribution sockets of C13 type.</p> <p>b) Should be configured and supplied with all required accessories like rack mounting hardware for mounting blade chassis, servers, storage etc. and cable managers/ arms/ fittings for managing all the data & power cables in the rear side of the Rack. All the cables should be arranged/ dressed/ secured so that no loose cables must be dangling loosely and all cables should be properly levelled on both sides.</p>
2	Warranty	Three Years Onsite Comprehensive Maintenance for both Hardware and Software (24/7) after the expiry of warranty (Optional)

10.5 Technical Specifications of 16 Port SAN Switch

Sl. No.	Item	Item Description
1	16 Port SAN Switch	i. Non-blocking architecture with minimum of 16 port and scalable up to 24 ports in a single domain concurrently active at 8Gbps full duplex with oversubscription.
		ii. The switch should support auto-sensing 1, 2, 4 Gbps capabilities.
		iii. The switch shall support different port types such as FL Port, F Port, M Port (Mirror Port), and E Port; self-discovery based on switch type (U Port); optional port type control in Access Gateway mode; F Port and NPIV-enabled N Port.
		iv. The switch should be rack mountable.
		v. Non-disruptive Microcode / firmware Upgrades and hot code activation.
		vi. The switch shall provide Aggregate bandwidth of 192 Gbps: 24 ports x 8Gbps (data rate) end to end.
		vii. Shall have optional support for Adaptive Networking services such as Quality of Service (QoS) to help optimize

		<p>application performance in consolidated, virtual environments. It should be possible to define high, medium and low priority QoS zones to expedite high priority traffic.</p> <p>viii. SAN switch shall have support to restrict data flow from less critical hosts at present bandwidths.</p> <p>ix. The Switch should be configured with the Zoning and shall also support ISL trunking when more than 2 switches are configured in a single fabric.</p> <p>x. The Switch shall be able to support ISL trunk up to 64 Gbps between a pair of switches for optimal bandwidth utilization and load balancing.</p>
		<p>xi. Exchange-based load balancing across ISLs should be supported with Dynamic Path Selection included in Switch OS.</p> <p>xii. SAN Switch shall have support to isolate the high bandwidth data flows traffic to specific ISLs.</p> <p>xiii. Switch shall support to measure the top bandwidth-consuming traffic in real time for a specific physical or virtual device, or end to end across the fabric.</p> <p>xiv. Support for web based management and should also support CLI.</p> <p>xv. The switch shall support advance zoning and ACL to simplify administration and significantly increase control over data access.</p> <p>xvi. Offered Switch shall have support to configure the switches with alerts based on threshold values for temperature, fan status, Power supply status, port status.</p> <p>xvii. Switch shall support POST and online/offline diagnostics, including RAS trace logging, environmental monitoring, non-disruptive daemon restart, FC ping and Path Info (FC traceroute), Port mirroring (SPAN port).</p> <p>xviii. The switch should have USB port for firmware download, support, save, and configuration upload / download.</p> <p>xix. Three Years Onsite Comprehensive Maintenance for both Hardware and Software (24/7) after the expiry of warranty (Optional)</p>

Part III - Standard Conditions of RFP

The Bidder is required to give confirmation of their acceptance of the Standard Conditions of the Request for Proposal mentioned below which will automatically be considered as part of the Contract concluded with the successful Bidder as selected by the Buyer. Failure to do so may result in rejection of the Bid submitted by the Bidder.

1. **Law:** The Contract shall be considered and made in accordance with the laws of the Republic of India. The contract shall be governed by and interpreted in accordance with the laws of the Republic of India.
2. **Effective Date:** PCDA (P) Allahabad will issue Supply Order for the delivery, installation, testing and commissioning of the Storage Area Network and Tape Library as per the Specification in Part II of RFP. The selected bidder is expected to complete the delivery, installation, testing and commissioning of the Storage Area Network and Tape Library within a period of 05 weeks of the supply order.
3. **Arbitration:** All disputes or differences arising out of or in connection with the Contract shall be settled by bilateral discussions. Any dispute, disagreement or question arising out of or relating to the Contract or relating to construction or performance, which cannot be settled amicably, may be resolved through arbitration. The standard clause of arbitration is as per Forms DPM-7, DPM-8 and DPM-9 (Available in MoD website and can be provided on request).
4. **Penalty for use of Undue influence:** The bidder/seller undertakes that he has not given, offered or promised to give, directly or indirectly, any gift, consideration, reward, commission, fees, brokerage or inducement to any person in service of the Buyer or otherwise in procuring the Contracts or forbearing to do or for having done or forborne to do any act in relation to the obtaining or execution of the present Contract or any other Contract with the Government of India for showing or forbearing to show favor or disfavor to any person in relation to the present Contract or any other Contract with the Government of India. Any breach of the aforesaid undertaking by the bidder/Seller or any one employed by him or acting on his behalf (whether with or without the knowledge of the Seller) or the commission of any offers by the Seller or anyone employed by him or acting on his behalf, as defined in Chapter IX of the Indian Penal Code, 1860 or the Prevention of Corruption Act, 1986 or any other Act enacted for the prevention of corruption shall entitle the Buyer to cancel the contract and all or any other contracts with the Seller and recover from the Seller the amount of any loss arising from such cancellation. A decision of the Buyer or his nominee to the effect that a breach of the undertaking had been committed shall be final and binding on the Seller. Giving

or offering of any gift, bribe or inducement or any attempt at any such act on behalf of the Seller towards any officer/employee of the Buyer or to any other person in a position to influence any officer/employee of the Buyer for showing any favor in relation to this or any other contract, shall render the Seller to such liability/ penalty as the Buyer may deem proper, including but not limited to termination of the contract, imposition of penal damages, forfeiture of the Bank Guarantee and refund of the amounts paid by the Buyer.

5. **Non-disclosure of Supply documents:** Except with the written consent of the Buyer/ Seller, other party shall not disclose the supply or any provision, specification, plan, design, pattern, sample or information thereof to any third party.
6. **Liquidated Damages:** In the event of the Seller's failure to submit the Bonds, Guarantees and Documents, supply the stores/goods and conduct trials, installation of equipment, training, etc as specified in this RFP, the Buyer may, at his discretion, withhold any payment. The BUYER may also deduct from the SELLER as agreed, liquidated damages to the sum of 0.5% of the supply order price of the delayed/undelivered stores/services mentioned above for each week or part of a week during which the delivery of such stores may be in arrears where delivery thereof is accepted after expiry of the aforesaid period, subject to the maximum value of the Liquidated Damages being not higher than **10%** of the value of delayed stores beyond the original date of delivery/completion of supplies/service as indicated in Supply order.
7. **Termination of Contract:** The Buyer shall have the right to terminate this Contract in part or in full in any of the following cases :-
 - (a) The delivery of the material is delayed for causes not attributable to Force Majeure for more than (01 months) after the scheduled date of delivery.
 - (b) The Seller is declared bankrupt or becomes insolvent.
 - (c) The delivery of material is delayed due to causes of Force Majeure by more than (02 months) provided Force Majeure clause is included in contract.
 - (d) The Buyer has noticed that the Seller has utilised the services of any Indian/Foreign agent in getting this supply and paid any commission to such individual/company etc.
 - (e) As per decision of the Arbitration Tribunal.
8. **Notices:** Any notice required or permitted by the contract shall be written in the English language and may be delivered personally or may be sent by FAX or registered pre-paid mail/airmail, addressed to the last known address of the party to whom it is sent.

- 9. Transfer and Sub-letting:** The Seller has no right to give, bargain, sell, assign or sublet or otherwise dispose of the Supply or any part thereof, as well as to give or to let a third party take benefit or advantage of the present Supply or any part thereof.
- 10. Patents and other Industrial Property Rights:** The prices stated in the present Supply shall be deemed to include all amounts payable for the use of patents, copyrights, registered charges, trademarks and payments for any other industrial property rights. The Seller shall indemnify the Buyer against all claims from a third party at any time on account of the infringement of any or all the rights mentioned in the previous paragraphs, whether such claims arise in respect of manufacture or use. The Seller shall be responsible for the completion of the supplies including spares, tools, technical literature and training aggregates irrespective of the fact of infringement of the supplies, irrespective of the fact of infringement of any or all the rights mentioned above.
- 11. Amendments:** No provision of present Supply shall be changed or modified in any way (including this provision) either in whole or in part except by an instrument in writing made after the date of this Supply and signed on behalf of both the parties and which expressly states to amend the present Supply.
- 12. Taxes and Duties**
- i) **General**
1. If Bidder desires to ask for GST, the same must be specifically stated. In the absence of any stipulation, it will be presumed that the prices include all such charges and no claim for the same will be entertained.
 2. If reimbursement of any GST is intended as extra over the quoted prices, the Bidder must specifically say no. In the absence of any such stipulated it will be presumed that the prices quoted are firm and final and no claim on account of such GST will be entertained after the opening of tenders.
 3. If a Bidder chooses to quote a price inclusive of any GST and does not confirm inclusive of such GST so included is firm and final, he should clearly indicate the rate of such GST and quantum of such GST included in the price. Failure to do so may result in ignoring of such offers summarily.
 4. If a Bidder is exempted from payment of any GST up to any value of supplies from them, he should clearly state that no such GST will be charged by him up to the limit of exemption which he may have. If any concession is available in regard to rate/quantum of any Duty/tax, it should

be brought out clearly. Stipulations like, the said GST was presently not applicable but the same will be charged if it becomes leviable later on, will not be accepted unless in such cases it is clearly stated by the Bidder that such GST will not be charged by him even if the same becomes applicable later on. In respect of the Bidders, who fail to comply with this requirement, their quoted prices shall be loaded with the quantum of such GST which is normally applicable on the item in question for the purpose of comparing their prices with other Bidders.

5. Any change in any GST upward/downward as a result of any statutory variation in exercise taking place within contract terms shall be allowed to the extent of actual quantum of such GST paid by the supplier. Similarly, in case of downward revision in any duty/tax, the actual quantum of reduction of such GST shall be reimbursed to the Buyer by the Seller. All such adjustments shall include all reliefs, exemptions, rebates, concession etc., if any, obtained by the seller.

Part IV - Special Conditions of RFP

The Bidder is required to give confirmation of their acceptance of Special Conditions of the RFP mentioned below which will automatically be considered as part of the Contract concluded with the successful Bidder (i.e. Seller in the Contract) as selected by the Buyer. Failure to do so may result in rejection of Bid submitted by the Bidder.

1. **Performance Guarantee:**

The Bidder will be required to furnish a Performance Guarantee by way of Bank Guarantee through a public sector bank or a private sector bank authorized to conduct government business (ICICI Bank Ltd., Axis Bank Ltd or HDFC Bank Ltd.) for a sum equal to 10% of the contract value within 30 days of receipt of the confirmed order. Performance Bank Guarantee will be valid up to 60 days beyond the date of warranty. The specimen of PBG is given in Form DPM-15, enclosed to Part-IV of this RFP.

2. **Option Clause:** This contract has an Option Clause, wherein the Buyer can exercise an option to maintain an additional 50% of the original contracted quantity in accordance with the same terms & conditions of the present contract. This will be applicable within the currency of contract. It will be entirely the discretion of the Buyer to exercise this option or not.

3. **Repeat Order Clause** - This contract has a Repeat Order Clause, wherein the Buyer can order upto 50% quantity of the items under the present contract within six months from the date of supply/successful completion of this contract, cost, terms & conditions remaining the same. It will be entirely the discretion of Buyer to place the Repeat order or not.

4. **Tolerance clause** - To take care of any change in the requirement during the period starting from issue of RFP till placement of the contract, Buyer reserves the right to 50 % plus/minus increase or decrease the quantity of the required goods up to that limit without any change in the terms & conditions and prices quoted by the Seller. While awarding the contract, the quantity ordered has been increased or decreased by the Buyer within this tolerance limit.

5. **Advance Payments:** No Advance payment will be made.

6. **Paying Authority:** The Sr. Accounts Officer O/O Principal Controller of Defence Accounts (Pensions), Draupadi Ghat, Allahabad- 211014.

7. Terms of Payment: 100% payment will be made on receipt, successful installation, Testing and Commissioning of the machine(s) and after the same found properly functional during the inspection and on submission of Performance Bank Guarantee for 10% of the value of contract to cover the warranty period of three year, and the Pre receipted bill in Triplicate along with supply order in original.

- a. Bench mark test is to be organized by the supplier regarding speed and performance at site of the PCDA (P), Allahabad after installation.
- b. Please submit self-attested copy of PAN Card of your firm along with your bill.
- c. Please also submit a copy of Mandate Form for RTGS/EFT/NEFT duly vetted by your banker

8. Risk & Expense clause

1. Should the stores or any installment thereof not be delivered within the time or times specified in the contract documents, or if defective delivery is made in respect of the stores or any installment thereof, the Buyer shall after granting the Seller 45 days to cure the breach, be at liberty, without prejudice to the right to recover liquidated damages as a remedy for breach of contract, to declare the contract as cancelled either wholly or to the extent of such default.
2. Should the stores or any installment thereof not perform in accordance with the specifications / parameters provided by the SELLER during the check proof tests to be done in the BUYER's country, the BUYER shall be at liberty, without prejudice to any other remedies for breach of contract, to cancel the contract wholly or to the extent of such default.
3. In case of a material breach that was not remedied within 45 days, the BUYER shall, having given the right of first refusal to the SELLER be at liberty to purchase, manufacture, or procure from any other source as he thinks fit, other stores of the same or similar description to make good:-
 - a. Such default
 - b. In the event of the contract being wholly determined the balance of the stores remaining to be delivered there under.

4. Any excess of the purchase price, cost of manufacturer, or value of any stores procured from any other supplier as the case may be, over the contract price appropriate to such default or balance shall be recoverable from the SELLER. Such recoveries shall not exceed 10% of the value of the contract.

9. Force Majeure clause

a. Neither party shall bear responsibility for the complete or partial non-performance of any of its obligations (except for failure to pay any sum which has become due on account of receipt of goods under the provisions of the present contract), if the non-performance results from such Force Majeure circumstances as Flood, Fire, Earth Quake and other acts of God as well as War, Military operation, blockade, Acts or Actions of State Authorities or any other circumstances beyond the parties control that have arisen after the conclusion of the present contract.

b. In such circumstances the time stipulated for the performance of an obligation under the present contract is extended correspondingly for the period of time of action of these circumstances and their consequences.

c. The party for which it becomes impossible to meet obligations under this contract due to Force Majeure conditions, is to notify in written form the other party of the beginning and cessation of the above circumstances immediately, but in any case not later than 10 (Ten) days from the moment of their beginning.

e. If the impossibility of complete or partial performance of an obligation lasts for more than 6 (six) months, either party hereto reserves the right to terminate the contract totally or partially upon giving prior written notice of 30 (thirty) days to the other party of the intention to terminate without any liability other than reimbursement on the terms provided in the agreement for the goods received.

- 10. Warranty/Guarantee clause:** The supplier will submit a certificate declaring “the goods, stores articles sold supplied to the purchaser under this supply order shall be of the best quality and workmanship and new in all respects and shall be strictly in accordance with the specification and particulars contained /mentioned in the supply order. The supplier hereby guarantees that the said goods/stores/articles would continue to the description and quality aforesaid for a period of **three year** from the date of delivery and installation of the said goods/stores/articles to the purchaser, and will replace/ rectify any defect or defects free of cost during aforesaid warranty period”.

Part V - Evaluation Criteria & Price Bid issues

Evaluation Criteria - The broad guidelines for evaluation of Bids will be as follows:

- a. Only those Bids will be evaluated which are found to be fulfilling all the eligibility and qualifying requirements of the RFP, both technically and commercially.
- b. In respect of Two-Bid system, the technical Bids forwarded by the Bidders will be evaluated by the Buyer with reference to the technical specification of the Items mentioned at as mentioned in the RFP. The Price Bids of only those Bidders will be opened whose Technical Bids would clear the technical evaluation.
- c. The Lowest bidder will be decided among technically qualified bidders based upon the lowest price inclusive of all taxes, insurance and freight i.e. F.O.R. at the premises of PCDA(P) quoted for SITC of SAN, Tape Library, KVM switch, 42 U Rack and SAN Switch as per Price Format given at Para 2 Below on basket basis. The financial bid shall be evaluated on the basis of the total quoted cost to the buyer.

1. Technical Bid:

1.1 Preparation of bid:

- (a) The Technical bid shall be prepared by the bidder in the following Model Response Format enclosed.
 - i. Firm should be a PAN/TAN/TIN holder. A copy of the PAN / TIN and Service Tax number of the firm to be submitted. certified copy of Income Tax return of the firm for the last two financial year should be enclosed
 - ii. Firm should have been registered with company of registrar. A copy of registration be enclosed in support.
 - iii. Two satisfactory supply certificates for the last three years from Government/ Semi Government/ Autonomous bodies/ Private institutions of repute to be given
 - iv. The annual work orders of last two Years (i.e 2015-16, 2016-17) of the firm should be worth more than Rs.50 (Fifty) lakhs from GOI/PSUs/Reputed private firms in a financial year. A copy of the Supply orders to be enclosed.
 - v. Declaration about fraud and corrupt practices.
 - vi. Letter of acceptance of Standard and Special condition of RFP mentioned at Part III and Part IV of this RFP, which will formulate a part of contract agreement with the successful bidder.
 - vii. Proof of Manufacture or Authorised dealership of quoted item must

be submitted. The firm should be OEM or have registered authorized dealership of goods or having specific authorization of the OEM of make/Model which is desired through this bid documents.

viii. The Bidder are required to furnish clause by clause compliance of specifications as per the Schedule of Requirement(SOR) at Part 2 of this RFP, bringing out clearly the deviations from specification, if any. The Bidders are required to submit the compliance statement in the format enclosed as Appendix M.

(b) An Earnest Money Deposit to be submitted with Tender by way of Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee from any of the public sector banks or a private sector bank authorized to conduct government business as per Form DPM-16 (Available in MoD website and can be provided on request) in favour of The Principal Controller of Defence Accounts (Pensions), Draupadi Ghat, Allahabad - 211 014.

Note : Without EMD the tender will be summarily rejected.

1.2 Opening of Technical Bids

Board of Officers (TEC : Tender Evaluation Committee) duly constituted by the PCDA(Pension) Allahabad will open all technical bids in the first instance in the presence of bidders' representatives, who choose to attend, at the time, and date specified in the 'Invitation for Bids'. The bidder or bidders' representatives present there shall sign a register evidencing their attendance. After opening of technical bids TEC will check the validity of document such as EMD, proof of manufacture or authorized dealership etc.

1.3 Clarification of Bids

(a) During evaluation of the bids, PCDA (P) may, at its discretion, ask the Bidder for clarification of its bid. The request for clarification and the response shall be in writing and no change in price or substance of the bid shall be sought, offered or permitted.

(b) No Bidder shall contact PCDA (P) on any matter relating to its bid from the time of the bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of PCDA (P), it should be done in writing.

(b) Any effort by a Bidder to influence PCDA (P) in its decisions on bid evaluation, bid comparison or contract award decisions may result in rejection of the Bidder's bid.

1.4 Evaluation and Comparison of Technical Bids

(a) The Technical Bid evaluation will be done on the basis of evaluation criteria mentioned above.

(b) A substantially responsive bid is the one which conforms to all terms and conditions of the bid documents without material deviations. Deviations from or objections or reservations to critical provisions like Bid Security, Warranty & Guarantee, Applicable Law, Taxes and Duties and non-submission of documents such as valid Agency Agreement and technical literature should be deemed to be a material deviation.

(c) PCDA (P) shall evaluate substantially responsive bids. to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether essential documents such as the technical literature and Agency Agreement have been furnished, whether the bid documents have been properly signed, and whether the bids are generally in order.

(d) The bidders short-listed by PCDA(P) based on evaluation of their technical bids may be called for detailed discussions with a team selected by PCDA(P) for the purpose, at a specified date, time and venue, if needed

(e) The main objective of the TEC is to prepare technical matrix showing how the technical parameters of bids received compare with the parameters mentioned in the tender document. If the offers conform to essential parameters they should be accepted.

(f) The TEC would prepare a compliance statement bringing out the extent of variations and differences, if any, in the technical characteristics of the tendered item(s) offered by various vendors with reference to schedule of requirement and compliance or noncompliance with the essential parameters. If considered necessary, the TEC may invite those vendors who meet essential parameters for technical presentation/clarification.

(g) The TEC report would be prepared. The following aspects should be kept in mind by the TEC:

- i. The basic profile/character of technical offer must not be permitted to be changed.
- ii. Opportunity for revision of minor technical details should be accorded to all vendors in equal measure to ensure fair play.
- iii. No extra time would be given to any vendor to modify his offer to make it quantity requirement compliant.
- iv. Original commercial quotes must remain firm and fixed and no

loading/unloading in price would be permitted during TEC's discussion with the vendor.

- v. No conditional offer would be accepted which is not in conformity with the specifications mentioned in the schedule of requirement.

(h) The TEC would not be authorized to discuss commercial aspects of the case. However, the TEC would prepare a compliance statement in respect of commercial terms and conditions, such as bid security, warranty, etc., included in the technical bid as per the schedule of requirement.

2. Financial Bids

2.1 **Preparation of Bid:** The Commercial / Financial bid shall be prepared by the bidder in the following Model Response Format enclosed. (**Appendix 'B' and Appendix 'L'**)

2.2 Opening of Financial Bids

a) Board of Officers or CNC (Commercial Negotiation Committee) as required, duly nominated by the PCDA(Pension) Allahabad will open the Financial Bids of only those bidders who have been found to be technically qualified.

b) In case, where it may not be practicable to incorporate all possible details in the technical specification(s), thereby requiring elaborations/clarifications during technical discussion. This may necessitate submission of revised commercial bids consequent upon discussion during TEC/CNC. If the original price bids have not been opened, equal opportunity to all technically acceptable vendors would be given to give their revised commercial bids in a sealed cover. The CNC would take into account the revised commercial bids to arrive at L1. Before calling for revised commercial bids where original price bids have not been opened, approval of CFA would invariably be taken.

c) The Financial Bids of the technically qualified bidders shall be opened in the presence of their representatives, who choose to be present, on a specified date, time and venue indicated in the "Invitation for bids".

d) Arithmetical errors will be rectified on the following basis: If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If the Vendor does not accept the

correction of errors, its bid will be rejected. If there is a discrepancy between words and figures, whichever is the higher of the two will be treated as the bid price.

e) Trivial errors such as omission to (i) enter the rates in words, (ii) initial any alteration in rates or (iii) sign both the tender and the schedules(s) may be corrected, initialed and dated both by the officers opening the tenders and signed and dated by subsequently by the tenderer.

f) The evaluation and comparison of responsive bids shall be done on the prices of the goods / services offered inclusive of all levies & taxes, such as VAT, Excise Duty and other charges as indicated in the price schedule of the Bid document but exclusive of Octroi/Entry Tax, which is to be paid extra as per actual, wherever applicable. The financial bid shall be evaluated on the basis of the total quoted cost.

3 Award of Contract

3.1 Award Criteria

Subject to the signing of contract, Principal Controller of Defence Accounts (Pensions) will award contract to the successful bidder whose bid has been determined to be substantially responsive and has been determined to be technically, commercially and financially acceptable by **PCDA(P)**. The purchaser reserves the right to counter offer price(s) against price(s) quoted by any bidder.

3.2 Waiver of QRs/parameters:

There will be no waiver of parameters as this may result in denial of opportunity to firms which could have met the revised essential parameters, had this been reflected in the proposal ab initio. This is particularly relevant in single vendor/resultant single vendor cases where waiver of essential parameters after issue of proposal and receipt of tenders would be prejudicial to the interest of other firms which might have submitted their bids as per the revised parameters but could not because of the essential parameters mentioned in the proposal.

3.3 Pre-bid conference:

To obviate the possibility of the proposal fetching no response, resulting in a single vendor situation or resulting in generation of limited competition, technical specifications should be firmed up in a pre bid conference in two-bid tender, particularly where the goods/services to be procured are not available

commercially off-the-shelf or are of complex and highly technical nature. No fresh commercial bids will be invited after opening of technical bids.

3.4 PCDA (P)'s Right to accept or reject any Bid or all Bids:

PCDA (P) reserves the right to accept or reject any bid in part or full, and to annul the bidding process and reject all bids at any time prior to award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidders of the grounds for PCDA(P)'s action.

3.5 Notification of Award

(a) Prior to the expiry of the period of bids validity, PCDA(P) will notify the successful Bidder in writing by letter or by fax, to be confirmed in writing by speed post or hand delivered letter, that its bid has been accepted . Thereafter the bidder will have to submit performance security as mentioned in part IV of RFP.

(b) The notification of Award will constitute the formation of the Contract.

3.6 Signing of Contract

At the same time as PCDA (P) notifies the successful Bidder that its bid has been accepted, PCDA(P) will send the Bidder the Contract. The bidder will sign the same return it to PCDA (P). No material deviations in the contract shall be allowed.

sd/-
ACCOUNTS OFFICER(I T&S)

BID FORM (Technical Bid)

(To be submitted on the firm's letter head and signed by an authorized person.)

To,

The Group Officer (EDP Centre),
o/o The Principal Controller of Defence Accounts (Pension)
Draupadi Ghat, Allahabad – 211 014

Ref: Bid document No. EDP/46/PC/2017-18/Vol-I

Dated: 22/12/2017

Sir,

Having examined the bidding documents, the receipt of which is hereby duly acknowledged, we, the undersigned, offer for the said supply as per the schedule of requirements and in conformity with the said bidding documents.

We undertake, if our bid is accepted, to supply in accordance with the schedule specified in the bidding documents.

If our bid is accepted, we will submit a bank guarantee equivalent to 10% of the contract price for fourteen months for the due performance of the Contract, in the form prescribed by the Principal Controller of Defence Accounts (Pension)

We agree to abide by this bid for a period of One hundred and twenty days after the date fixed for opening and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

WE DECLARE

1. That we are equipped with adequate Techniques and manpower for undertaking the said supply to PCDA (P).
2. That we hereby offer to supply the services at the prices and rates mentioned in the Financial Bid.
3. That we enclose herewith the complete Technical Bid as required by you.
4. We have carefully read and understood the terms and conditions of the bid/tender documents and the conditions of the contract applicable to the bid document and we do hereby undertake to provide services as per these terms and conditions.
5. Certified that the bidder is:

a sole proprietorship firm and the person signing the bid document is the sole proprietor/constituted attorney of the sole proprietor,

or

a partnership firm, and the person signing the bid document is a partner of the firm and he has authority to refer to arbitration disputes concerning the business of the partnership by virtue of the partnership agreement/by virtue of general power of attorney,

or

a company and the person signing the document is the constituted attorney.

(NOTE: Delete whatever is not applicable. All corrections/deletions should invariably be duly attested by the person authorised to sign the bid document)

6. We do hereby undertake, that, until a formal work order is prepared and executed, this bid, together with your written acceptance thereof and placement of letter of intent awarding the work order, shall constitute a binding contract between us.

Dated this,.....day of.....2017

Signature of Bidder

Details of enclosures:

Full Address :.....
.....
.....

Telephone No :.....

Address :.....

Fax No :.....

E-mail :.....

Contact Person:.....

COMPANY SEAL

Bidder Form (Financial Bid)

(To be submitted on the firm's letter head and signed by an authorized person.)

To,
The Group Officer (EDP Centre),
O/O The Principal Controller of Defence Accounts (Pension)
Draupadi Ghat, Allahabad – 211 014

Ref: Bid document No. EDP/46/PC/2017-18/Vol-I

Dated: 22/12/2017

Sir,

Having examined the bidding documents and having submitted the technical bid for the same, we, the undersigned, hereby submit the financial bid for SITC of SAN, Tape Library, KVM Switch, 42 RACK and SAN Switch as per the schedule of requirements and in conformity with the said bidding documents.

We enclose herewith the complete Financial Bid as required by you. This includes:

- (a) Bid Letter
- (b) Price Schedule (Schedule to tender enquiry, quoting rates, duly signed & stamped.)
(Appendix L)
- (c) Statement of deviations from financial terms and conditions, if any.

We agree to abide by our offer for a period of 120 days from the date fixed for opening of the bid documents and that we shall remain bound by a communication of acceptance within that time.

We have carefully read and understood the terms and conditions of the bid document and we do hereby undertake to supply as per these terms and conditions.

Certified that the bidder is:-

a sole proprietorship firm and the person signing the bid document is the sole proprietor/constituted attorney of sole proprietor.

OR

a partnership firm, and the person signing the bid document is a partner of the firm and he has authority to refer to arbitration disputes concerning the business of the

partnership by virtue of the partnership agreement/by virtue of general power of attorney.

OR

a company and the person signing the bid document is the constituted attorney.

(Note: Delete whatever is not applicable. All corrections/deletions should invariably be duly attested by the person authorized to sign the bid document)

We do hereby undertake, that, in the event of our bid found technically and financially acceptable, and until formal work order is prepared and executed, this bid, together with your written acceptance thereof and placement of letter of intent awarding the work order, shall constitute a binding contract between us.

Dated thisday of2017

Signature of Bidder

List of enclosures

Full Address:
.....
.....

Telephone No.

Fax No. :

E-mail :

Contact Person :

Company Seal

PRINCIPAL CONTROLLER OF DEFENCE ACCOUNTS (PENSIONS),

ALLAHABAD,

UP-211014

PROFORMA FOR BANK GUARANTEE FOR PERFORMANCE SECURITY

(To be stamped in accordance with the Stamp Act)

Ref : Bank Guarantee

No. :

To

The Principal Controller of Defence Accounts (Pensions)

Draupadi Ghat, Allahabad – 211 014

Dear Sir,

In accordance with the Award of contract for SITC of SAN, Tape Library, KVM Switch, 42 RACK and SAN Switch at PCDA(P), M/s (hereafter called the Vendor) having their Registered/Head Office at wish to avail the same. As an irrevocable Bank Guarantee against the above work for an amount of Rs. (Rs.....) equivalent to the 10%of the contract price is required to be submitted by the Vendor as a condition precedent for the award of contract, which amount is liable to forfeited/adjusted on the happening of any of the following :

1. If the Vendor withdraws his contract during the period of contract specified by the Vendor on the bid form.
2. If the Vendor, having been accepted the Award of contract :
 - (a) Fails or refuses to execute the contract within the stipulated time.
 - (b) Fails or refuses to provide the satisfactory services.

We, the Bank at having our head office at and local office Guarantee and undertake to pay immediately on demand by The Principal Controller of Defence Accounts (Pensions), Draupadi Ghat, Allahabad – 211 014, the amount of Rs..... (Rs.) without any reservation, protest, demur and recourse. Any such demand made by The Principal Controller of Defence Accounts (Pension), Draupadi Ghat, Allahabad – 211 014 shall be Conclusive and binding on us, irrespective of any dispute or difference raised by the Vendor.

The Guarantee shall be irrevocable and shall remain valid up to, if any further extension of any guarantee is required, the same shall be extended to such required period on receiving instructions from M/s on whose behalf this guarantee is issued.

In witness whereof the bank through its authorized officer, has set its hand and stamps on this day of, 2017 .

Witness

(1) Signature..... Signature.....

Name Name

(in Block Letters)..... (Designation with Stamp)

Address

.....

.....

.....

(2) Signature.....

(in Block Letters).....

Address

.....

PRINCIPAL CONTROLLER OF DEFENCE ACCOUNTS (PENSIONS),
ALLAHABAD
PROFORMA FOR EARNEST MONEY DEPOSIT

Whereas¹(hereinafter called the "Bidder") has submitted its bid dated (date of submission of bid) for the supply of
..... (name and/or description of the goods/services) (hereinafter called the "Bid").

KNOW ALL PEOPLE by these presents that WE (name of bank) of (name of the country), having our registered office at (address of Bank) (hereinafter called "the Bank"), are bound unto (name of Purchaser) (hereinafter called "the Purchaser") in the sum of for which payment well and truly to be made to the said Purchaser, the Bank binds itself, its successors, and assigns by these presents. Sealed with the Common Seal of the said Bank this day of 2017..... THE CONDITIONS of this obligation are:

1. If the Bidder withdraws its Bid during the period of bid validity specified by the Bidder on the Bid Form; or
2. If the Bidder, having been notified of the acceptance of its bid by the Purchaser during the period of bid validity:
 - (a) fails or refuses to execute the Contract Form if required; or
 - (b) fails or refuses to furnish the performance security, in accordance with the Instructions to Bidders.

We undertake to pay the Purchaser up to the above amount upon receipt of its first written demand, without the Purchaser having to substantiate its

demand, provided that in its demand the Purchaser will note that the amount claimed by it is due to it, owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

This guarantee shall remain in force up to and including forty five (45) days after the period of the bid validity, and any demand in respect thereof should reach the Bank not later than the above date.

. (Signature of the Bank)¹

Name of Bidder

Model ECS Mandate Format

Customer's option to receive payments through e-Payment (ECS/ EFT/ DIRECT CREDIT/ RTGS/ NEFT/ Other payment mechanism as approved by RBI.)

Credit Clearing Mechanism

1. Customer's name
2. Particulars of Bank Account :-
 - a. Bank name
 - b. Branch name
 - c. Address
 - d. Telephone numbers
 - e. IFS code
 - f. 9 Digit code number of Bank and Branch appearing on MICR cheque issued by Bank
 - g. Account Type (S.B. Account / Current Account or Cash)
 - h. Ledger number
 - i. Ledger Folio number
 - j. Account number as appearing on Cheque Book
3. Please attach a blank cancelled cheque, or, photocopy of a cheque or front page of your savings bank passbook issued by your bank for verification of the above particulars.
4. Date of Effect
"I, hereby, declare that the particulars given above are correct and complete. If the transaction is delayed or not effected at all for reasons of incomplete or incorrect information, I would not hold the user institution responsible. I have read the option invitation letter and agree to discharge the responsibility expected of me as a participant under scheme."

(.....) Date -
Signature of Customer

Certified that the particulars furnished above are correct as per our records.

Bank's Stamp: (.....) Date:

Signature of the Authorized Official from the Bank

DECLARATION ABOUT FRAUD AND CORRUPT PRACTICES

We certify that last three years, we have neither failed to perform on any contract, as evidenced by imposition of a penalty by an arbitral or judicial authority on a judicial pronouncement or arbitration award, nor been expelled from any project of contract by any public authority nor have had any contract terminated by any public authority for breach on our part.

We declare that;

- (a) We have not directly or indirectly or through an agent engaged or indulged in any corrupt, fraudulent, coercive or restrictive practices as defined in Part III of RFP, in respect of any tender or request for proposal issued by or any agreement entered into with the Authority or any other public sector enterprises on any Government, Central or State; and We hereby certify that we have taken steps to ensure that in conformity with the provisions of Part III of RFP documents, no person acting for us or on our behalf has engaged in any corrupt, fraudulent, coercive, or any other undesirable practices.
- (b) We certify that in regard to matters other than security and integrity of the country, we or any of our associates have not been convicted by a Court of law or indicated of adverse orders passed by a regulatory authority, which could cast a doubt on our ability to undertake the project or which relates to a grave offence that outrages the moral sense of the community.
- (c) We further certify that in regard to matters relating to security and integrity of the country, we have not been charge-sheeted by any agency of the Government or convicted by a Court of law.
- (d) We further certify that no investigation by a regulatory authority is pending either against us or against our CEO or any of our Directors/Managers/ Employees.

DECLARATION

I hereby certify that the information furnished above is correct to the best of my knowledge. I understand that in case any deviation is found in the above statement at any stage, the firm shall be blacklisted and shall not have any dealing with the Department in future.

(Signature of Authorized Signatory)

Date:

Company Seal

Named rubber stamp of authorized signatory

APPENDIX -G

Format of Letter of acceptance of standard and special condition of RFP, which will formulate a part of Agreement. The letter should be clearly typed on the letter head of the bidder Firm /Company in original ink signed by the authorized signatory

To,
The Principal Controller of Defence Accounts (Pensions)
Ministry of Defence, Government of India
Draupadi Ghat , Allahabad - 211014

Sub :- Letter of Acceptance

Ref :- RFP No. EDP/46/PC/2017-18/Vol-I Dated : 22 /12 /2017

I / We (Name of Firm) _____ hereby having registered office at _____ declares that I/ We have gone through the terms and conditions mentioned at Part III and Part IV of this RFP and accepts the standard and special conditions mentioned there in which would formulate a part of agreement, if the award of contract has been awarded to us. All the conditions would abide on us during the execution of contract.

(Signature of Authorized Signatory)

Date :

Named rubber stamp of authorized signatory

Company Seal

**FORMAT FOR MANUFACTURER'S
AUTHORISATION LETTER TO AGENT**
(on letter head)

Ref. No. Date:

To,
Principal Controller of Defence Accounts (Pensions),
Draupadi Ghat, Allahabad – 211014,
Uttar Pradesh, India.

Sub.: Authorization Letter.

Dear Sir,

We, _____, who are established and reputed manufacturers of _____, having factory at _____, hereby authorize M/s. _____ (name & address of Indian distributor /agent) to bid, negotiate and conclude the order with you for the above goods manufactured by us.

We shall remain responsible for the tender / contract / agreement negotiated by the said M/s. _____, jointly and severally.

We ensure that we would also support / facilitate the M/s _____ on regular basis with technology / product updates for up-gradation / maintains / repairing / servicing of the supplied goods manufactured by us, during the warranty period.

In case duties of the Indian agent / distributor are changed or agent /distributor is changed it shall be obligatory on us to automatically transfer all the duties and obligations to the new Indian Agent failing which we will ipso-facto become liable for all acts of commission or omission on the part of new Indian Agent/distributor.

Yours faithfully,
[Name & Signature]

For and on behalf of M/s. _____ [Name of manufacturer]

Note: This letter of authorisation should be on the letterhead of the manufacturing concern and should be signed by a person competent and having the power of attorney to bind the manufacturer. A copy of notarised power of attorney should also be furnished.

DECLARATION REGARDING BLACKLISTING/DEBARRING

I / We _____ Manufacture / Partner(s)/ Authorized Distributor /agent of M/S. _____ hereby declare that the firm/company namely M/s. _____ has not been blacklisted or debarred in the past by Union / State Government or organization from taking part in Government tenders in India.

Or

I / We _____ Manufacture / Partner(s)/ Authorized Distributor / agent of M/s. _____ hereby declare that the Firm/company namely M/s. _____ was blacklisted or debarred by Union / State Government or any Organization from taking part in Government tenders for a period of _____ years w.e.f. _____ to _____. The period is over on _____ and now the firm/company is entitled to take part in Government tenders.

In case the above information found false I/we are fully aware that the tender/ contract will be rejected/cancelled by PCDA (P), Allahabad, and EMD/ Performance Security shall be forfeited.

In addition to the above PCDA (P) will not be responsible to pay the bills for any completed / partially completed work.

Authorized Signatory

Name _____

Address _____

CERTIFICATE OF GUARANTEE / WARRANTY

(On Non-Judicial Stamp Paper of Rs. 100/- duly Notarized at the cost of the Tenderer)

I / We certify that the guarantee/ warranty shall be given for a period of three years starting from the date of Completion of Defect liability period as defined by Original Equipment Manufacturer (OEM) after handing over of the equipment and the work conducted under the contract. During the guarantee/ warranty period, I/ we shall provide the “after sale service” and the replacement of defective/ or any part(s) of the equipment or rectification of defects of work of the equipment will be free of cost. The replacement of the parts shall be arranged by us, at our own cost and responsibility. We undertake that the period of guarantee/ warranty shall begin only from the date of satisfactory and faultless functioning of the equipment including system integration from the day of handing over of equipment's to PCDA(P). The benefit of change in dates of the guarantee/ warranty period shall be in the interest of the use by your organization.

During the warranty period, we shall provide at-least 3 (three) preventive maintenance visits per year.

Uptime Guarantee: During the guarantee/warranty period, we will be responsible to maintain the equipment along with the accessories in satisfactory faultless working conditions including system integration of 98% (uptime) in a block of 365 (Three Hundred Sixty Five) days.

- All complaints will be attended by us within 4 (Four) hours of receipt of the complaint in our office. Actual and verifiable resolution time will not be counted for the purpose of levy of penalty.
- In case there is delay of more than 4 (four) hours in attending to a complaint from our side then you can count the number of hours in excess of the permissible response time in the downtime for calculating the penalty amount. The above said response time of 4 (four) hours for attending to a complaint by us will not be counted in the downtime.

Liquidated Damages/ Penalty: We shall pay the liquidated damages/ penalty equivalent to 0.5% (Point Five Percent) per week of the order value of the equipment for every week or part thereof delay in rectifying the defect subject to a maximum of 10% (ten) from the amount of our performance guarantee or due payments of us to be paid by PCDA (P).

No deduction or advantage of any kind on account of Sundays, half days or Public / Govt. holidays observed by the PCDA (P) shall be allowed from the total down time permissible as defined above. The right to accept the reason(s) for delay and consider reduction or waive off the penalty for the same shall be at the sole discretion of PCDA (P).

We shall try to repair the equipment at PCDA (P) premises. However, in case it is not possible to repair the equipment at PCDA (P) premises, we will take out the equipment to our site on our own expenses. We shall take the entire responsibility for the safe custody and transportation of the equipment taken out for repairs till the equipment is rehabilitated to the PCDA (P) after repair within a period of 4 (four) working days. If any loss of equipment occurred during our custody, we will compensate to PCDA (P) for such losses and reimburse the cost of equipment as mentioned in the letter of award.

We guarantee that in case we fail to carry out the maintenance work within the stipulated period, PCDA (P) reserves the right to get the maintenance work carried out at our risk and cost. However, PCDA (P) shall inform us to bear the responsibility through email but non-reply of email by us shall not be the constraint for execution of such works at our risk and cost. All the expenses including excess payment for repairs/maintenance shall be adjusted against the Performance Bank Guarantee which we have deposited with PCDA (P). In case the expenses exceed the amount of Performance Bank Guarantee, the same shall be recoverable from us with interest in accordance with the terms and conditions of the tender document and Indian Laws.

We undertake to perform calibration of the equipment's after every major repair/breakdown/taking the equipment out for repair from PCDA (P) premises. After each calibration we shall provide the Calibration Report for reference of PCDA (P).

We guarantee to the effect that before going out of production of spare parts, we will give adequate advance notice to you so that you may undertake to procure the balance for the lifetime requirements of spare parts.

Authorized signatory of the company with seal

Place :

Date:

Format for Financial Bid

(To be submitted on the letterhead of the company / firm)

Ref. No.

Dated:

Sl No	Description	Qty	Unit Rate in INR	Amount in INR
1	Basic Price of the equipment			
2	Other charges (if any, specify in brief)			
3	VAT / CST / GST (As applicable)			
Total				
			Total Cost	

Note:

1. I/We have gone through the entire terms & conditions as stipulated in the tender enquiry document and confirm to accept and abide the same.
2. No other charges would be payable by the Bank.
3. Rates are to be quoted in Indian Rupees only as these shall be paid in Indian Rupees only.

Authorized signatory of the company with seal

COMPLIANCE STATEMENT**Part II- 10.1 Technical Specifications of SAN Storage**

Sl. No.	Item	Description with Specification
1	Make	--Specify--
2	Model	--Specify--
3	Controllers	Redundant, hot-pluggable Active-Active array Controllers Or The Storage system must have at least two controllers running in an active-active mode with automatic failover to each other in case of one controller fails for both NAS(CIFS, NFS) and SAN(iSCSI & FCP). Proposed architecture should scale out upto minimum 8 controllers. In case of active-passive NAS gateways, configure minimum 3 gateways.
4	Host Interface	8 Nos of FC Host Parts @ 8 Gbps or higher or 4 Nos of 10 Gb iSCSI parts or 4X 16Gb FC and 4X 10Gb iSCSi
5	Drives Interface	The storage shall support 6Gbps SAS and NL-SAS drives. It should also support SSD drives.
6	RAID	The system should support 0, 5, 6, 10 or equivalent.
7	Fans and Power Supplies	Redundant, hot-swappable
8	Cache Memory	32GB across dual controllers Or 64 GB usable cache across the two controllers with an ability to protect data in cache if the system fails and it results into controller failure. The cache on the storage should have 72hrs or more battery backup.
9	Cache Protection	Cache should be mirrored between the Active-Active controllers (load balancing). The paths should be redundant (at least 2 paths) to prevent disruption if one path fails. Must support either Cache battery backup or any equivalent mechanism to safe guard data
10	No single point of failure	Storage Array should be configured in a No-Single-Point-of-Failure Architecture.

	Architecture	
11	OS Support	<p>Support for industry-leading Operating System platforms including: LINUX, Microsoft Windows, HP-UX, SUN Solaris, IBM-AIX, etc. It shall support connecting hosts over iSCSI and shall be supplied with any Multi-pathing software if required with the solution.</p> <p style="text-align: center;">Or</p> <p>Industry leading Operating System platforms including: Windows Server® 2008, Windows 2012, Sun Solaris®, HP-UX®, IBM- AIX®, Linux® 2.6 and above, RHEL-5®, VMware®, Hyper-V®.</p>
12	storage capacity	<p>The storage shall support SSD, SAS and SATA based disks simultaneously The storage should be provisioned with 10TB Usable capacities (after RAID 5 configuration) on max. of 900 GB or higher SAS disk of minimum 10K RPM (SFF). The complete solution should come in 6U or less.</p>
13	Storage Built-in functionality	<p>a) The storage shall have the ability to combine multiple RAID Groups into a single entity so as to create LUNS/Volumes using Multiple RAID Groups and hence from the single entity to give maximum performance to all the applications being served from these disks.</p> <p>b) The storage shall have the ability to expand and shrink LUNS/Volumes on the storage online and instantly.</p> <p>c) The offered storage array shall have support for thin provisioning and deduplication (Block as well as file) and compression. All the licenses for the same should be configured for the total capacity supported by the storage.</p> <p>d) The storage shall support security features like LUN masking, Zoning and the storage controller should have an ability to be divided into multiple logically separate controller and each logically separate controller should have separate admin rights. This functionality is required to create secure tenant environment for various application/workload/user department.</p> <p>e) The storage shall support standard storage (SAN & NAS) security features.</p>
14	Array Management	<p>Entire system must be manageable from a web-based single, secure interface without requirements for a separate management device or server.</p> <p>Entry-level system must have same management platform</p>

		<p>as the manufacturer's largest system in order to allow system expansion without learning curves in the future. Management system must include comprehensive online and remote monitoring abilities without third party hardware or software.</p> <p>At-a-glance, comparable views of current aggregate capacity statistics and overall storage resource objects for all SANs of same series from the vendor or The system should support RAID 5, RAID1+0/RAID6 or equivalent RAID technologies</p>
15	Protocols	The storage shall be provided with FCP, iSCSI, NFS and CIFS protocols for use with different applications and avoid any protocol related buying in future. Any hardware/software required for this functionality shall be supplied and external appliance should have high availability architecture for data and management
16	Controller software and Non-Disruptive Upgrade	Firmware should be upgradeable for functionality improvement and enhancements. Must support non-disruptive upgrade of core software, BIOS, snapshot, clone, remote mirroring and management software without shutting down the storage system. All host attached servers must remain fully operational during system level or maintenance upgrade procedures.
17	Information Life Cycle Management	The SAN must be able to provide automatic classification of data with no third party products. Data must be automatically moved in a Bi-Directional manner Software must be able to be managed within a single pane of glass. Data must be moved at the block level.
18	Thin Provisioning	<p>Storage should support Thin Provisioning and licenses for the same should be provided from day one for</p> <div style="text-align: center;"> <p>The diagram shows a storage architecture for thin provisioning. At the top, two Virtual Machines (VM 1 and VM 2) are connected to virtual disks. VM 1 is labeled 'THICK' and has a virtual disk with 40GB of used capacity and 40GB of provisioned capacity. VM 2 is labeled 'THIN' and has a virtual disk with 20GB of used capacity and 40GB of provisioned capacity. The total used capacity of the virtual disks is 60GB, and the total provisioned capacity is 80GB. Below the virtual disks is a physical disk with 20GB of used capacity and 40GB of provisioned capacity. The physical disk is labeled 'disk' and '20GB' and '40GB'.</p> </div> <p>configured capacity.</p>
19	Licensing	All licenses on the storage system must be provided for the offered capacity supported by the system from day one.
20	Availability	System should have redundant hot swappable

		components like disks, power supplies, fans etc.
21	Data protection	The storage shall also snapshots. License for the same should be provided from day one for configured capacity. Also license to restore snapshot should be provided.
22	Storage based Replication	Must support synchronous and Asynchronous replication.
23	Front-End & Back-End connectivity	The offered storage shall have minimum 4 X 12 Gbps Host ports, 8 X 1 GbE, for Ethernet and iSCSI connectivity. The system shall also be configured with 4 x 6Gbps Wide SAS ports for disk connectivity.
24	Scalability	The storage should be scalable to minimum 30 drives per array group or raid group for better performance
25	Upgradeability / Investment Protection	The proposed system should be field upgradeable to a higher model in the family with or without controller upgrade through data-in-place upgrades without requiring forklift upgrade and without requiring replacement of the disk shelves.
26	Storage Management	<p>Easy to use GUI based and web enabled administration interface for configuration, storage management. The Storage GUI should report any the lag between the primary and the DR storage in addition to sending alerts to the user.</p> <p>The storage management GUI should allow managing more than one single system from the GUI and even remote systems. Performance monitoring tool or software should be provided and the same will need to be licensed for the full capacity and maximum servers supported by the array.</p>
27	Remote Diagnostics/ Maintenance	The proposed system should support Web based, Email facility for remote service & also support dial-in / dial-out to report errors and warnings.
28	AC Power	200-240VAC,50Hz
29	Form factor	The proposed system must be Blade chassis based or rack mounted
30	Bill of Material	The vendor has to give part nos. of every component, which will be cross verified with OEM.
31	Warranty support	All HW & SW should be quoted with 3 year of comprehensive warranty including software update and upgrades. Should be provided by OEM 24X7 with maximum 6 hour onsite.
32	Backup Solution	A Solution for an efficient backup & restoration for the

		entire storage system should be provided. The backup solution should support both snapshot based backups and also full and incremental backups. The backup would be on separate storage and PCDA (P) will provide the separate storage capacity on different storage box. Any other Hardware, Software to run this backup solution should be included as part of bidder's offering along with the storage solution with detailed description.
--	--	---

Part II - 10.2 Technical Specifications of Tape & Backup with Backup software

Sl. No	Item	Description with Specification
1	Tape Library	<ul style="list-style-type: none"> i) Tape Library with One LTO7 Drive Scalable to 2 Drives. ii) Tape library should have at least 24 Media slots iii) Tape library should be Supplied with One Cleaning Cartridge & 10 LTO6 Media Cartridges iv) System should support SNMP. v) Should support data integrity check vi) Tape Library should be Rack mountable. vii) Backup software to take back up from storage directly for a minimum of 5No. of Hosts & One tape Drive with SAN Based Backup license viii) Should be compatible with all industry standard backup applications. ix) Software provided with the Tape Library should be capable of taking incremental, decremental and complete backup and necessary licence for the software should be provided. x) All kinds of reading mode of Bar Code should also be provided with Bar Code levels.
2	Warrant	Three Years Onsite Comprehensive Maintenance for both Hardware and Software (24/7).

Part - II - 10.3 Technical Specifications of KVM Switch

Sl. No.	Item	Description with Specification
1.	Computer Connections	Direct- 8 Max- 64 (via Cascade)
2.	Port Selection	OSD(On Screen Display), Hotkeys, Front panel Push Buttons

3.	Connectors/ Power	Keyboard, Video, Mouse, 1xRJ-11 (female), 1XDC Jack
4.	Switches	8xPushbutton
5.	LEDs	Separate for Online, Selected and Power
6.	Keyboard/ Mouse	PS/2, USB
7.	Video	Resolution of 2048x1536 or better
8.	Power consumption	DC less than 6 Volts; less than 6 watts
9.	Weight	Less than 2 Kgs
10.	Dimensions	Rack mount (19"system rack, 1 U)
11.	Warranty	Three Years Onsite Comprehensive Maintenance for both Hardware and Software (24/7) after the expiry of warranty (Optional)

Part - II- 10.4 Rack specification

Sl. No.	Item	Description
1	Server Racks	42 U Industry Standard Rack with following : a) 2 nos. of full height 32 Amp PDU housing min. 12 power distribution sockets of C13 type. b) Should be configured and supplied with all required accessories like rack mounting hardware for mounting blade chassis, servers, storage etc. and cable managers/ arms/ fittings for managing all the data & power cables in the rear side of the Rack. All the cables should be arranged/ dressed/ secured so that no loose cables must be dangling loosely and all cables should be properly levelled on both sides.
2	Warranty	Three Years Onsite Comprehensive Maintenance for both Hardware and Software (24/7) after the expiry of warranty (Optional)

Part II - 10.5 Technical Specifications of 16 Port SAN Switch

Sl. No.	Item	Item Description
1	16 Port SAN Switch	i. Non-blocking architecture with minimum of 16 port and scalable up to 24 ports in a single domain concurrently active at 8Gbps full duplex with oversubscription. ii. The switch should support auto-sensing 1, 2, 4 Gbps capabilities. iii. The switch shall support different port types such as FL

	<p>Port, F Port, M Port (Mirror Port), and E Port; self-discovery based on switch type (U Port); optional port type control in Access Gateway mode; F Port and NPIV-enabled N Port.</p> <p>iv. The switch should be rack mountable.</p> <p>v. Non-disruptive Microcode / firmware Upgrades and hot code activation.</p> <p>vi. The switch shall provide Aggregate bandwidth of 192 Gbps : 24 ports x 8Gbps (data rate) end to end.</p> <p>vii. Shall have optional support for Adaptive Networking services such as Quality of Service (QoS) to help optimize application performance in consolidated, virtual environments. It should be possible to define high, medium and low priority QoS zones to expedite high priority traffic.</p> <p>viii. SAN switch shall have support to restrict data flow from less critical hosts at present bandwidths.</p> <p>ix. The Switch should be configured with the Zoning and shall also support ISL trunking when more than 2 switches are configured in a single fabric.</p> <p>x. The Switch shall be able to support ISL trunk up to 64 Gbps between a pair of switches for optimal bandwidth utilization and load balancing.</p>
	<p>xi. Exchange-based load balancing across ISLs should be supported with Dynamic Path Selection included in Switch OS.</p> <p>xii. SAN Switch shall have support to isolate the high bandwidth data flows traffic to specific ISLs.</p> <p>xiii. Switch shall support to measure the top bandwidth-consuming traffic in real time for a specific physical or virtual device, or end to end across the fabric.</p> <p>xiv. Support for web based management and should also support CLI.</p> <p>xv. The switch shall support advance zoning and ACL to simplify administration and significantly increase control over data access.</p> <p>xvi. Offered Switch shall have support to configure the switches with alerts based on threshold values for temperature, fan status, Power supply status, port status.</p> <p>xvii. Switch shall support POST and online/offline diagnostics, including RAS trace logging, environmental</p>

		<p>monitoring, non-disruptive daemon restart, FC ping and Path Info (FC traceroute), Port mirroring (SPAN port).</p>
		<p>xviii. The switch should have USB port for firmware download, support, save, and configuration upload / download.</p>
		<p>xix. Three Years Onsite Comprehensive Maintenance for both Hardware and Software (24/7) after the expiry of warranty (Optional)</p>

Check List for Bid/Tender Submission

The following check-list must be filled in and submitted with the Technical Bid/Tender document:

1	Has this bid document been issued to you / downloaded by official site of pcda pensions Allahabad www.pcdapension.nic.in ?	Yes/No
2	Have you attached the Technical Bid and commercial Bid in separate envelope placed under One envelope clearly mentioned the RFP no. and date?	Yes/No
3	Have You submitted EMD?	Yes/No
4	Have PAN/TAN/TIN/ submitted along with documentary proof?	Yes/No
5	Have Service tax no. submitted along with documentary proof?	Yes/No
6	Have Registration no. of company submitted along with documentary proof?	Yes/No
7	Have you submitted necessary documents in proof of Performance certificate in proof of Experience?	Yes/No
8	Have you submitted Acceptance letter of Part III and IV of RFP?	Yes/No
9	Have you submitted Declaration about fraud and corrupt practices?	Yes/No
10	Have you attached copies of relevant work orders from Govt. Department / PSUs/ Reputed private firm? (Refer para 1, 1.1(a) iv of Part V of RFP)	Yes/No
11	Have you submitted the Bids on original memos of Company and duly signed and stamped on each page?	Yes/No
12	Have You submitted a copy of IT returns for two Years?	Yes/No
13	Have attached documents related to all requirement is self attested?	Yes/No
14	Have you submitted proof of Manufacture or Authorised dealership of quoted item?	Yes/No
15	Have you submitted format of compliance statement (Refer para 1, 1.1(a) viii of Part V of RFP)	Yes/No

Signature