PRASAR BHARATI
(INDIA'S PUBLIC SERVICE BROADCASTER)
CENTRAL ARCHIVES
AKASHVANI BHAWAN, NEW DELHI- 110001

File No PBCA/ (01)/2023-24   Dated: 25/10/2024

Subject: Industry feedback on Technical Specification for Supply Installation, Testing and commissioning (SITC) of hardware/software towards the upgradation of technical infrastructure at Akashvani Archives at Central Archives.

        Feedback of the Industry is invited from OEMs and their authorized dealers/sellers/bidders on the Technical specification for Supply Installation, Testing and commissioning (SITC) of hardware/ software towards the upgradation of technical infrastructure at Akashvani Archives at Central Archives. A copy of technical specifications is enclosed herewith for reference.

        Prospective bidders/OEMs are requested to offer their comments/ feedback along with the budgetary quote by prospective bidders/Firms on technical specification for Supply Installation, Testing and commissioning (SITC) of hardware/software towards the upgradation of technical infrastructure at Akashvani Archives at Central Archives. Response may be furnished through email by the bidders by 01/11/2024 on to the following address:

Email: ravikantsingh@prasarbharati.gov.in

Encl.: Technical Specifications

                                      25/10/2024

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1413994/2024/Engg. Section - Central Archives

Technical Specification for Supply, Installation, Testing and Commissioning (SITC) of hardware / software towards the upgradation of technical infrastructure at Central Archives, Prasar Bharati.

1. Background:

Prasar Bharati is the public service broadcaster of India, which caters the objectives of public service broadcasting through Doordarshan and Akashvani. In order to preserve media assets, Central Archives has been established at Akashvani Bhawan New Delhi. The setup has been divided in Akashvani Archives and Doordarshan Archives. Akashvani Archives caters for the digitization and preservation of sound / audio assets available in the network. The Archives has a huge repository of audio recordings like Music and cultural programs, Drama and theater performances, Interviews and speeches, Historical events, documentaries, etc. The technical infrastructure, provided for the management of media assets needs upgradation.

2. Scope

Prasar Bharati intends to upgrade its technical infrastructure for the management of sound media assets by inviting bids from OEMs or its authorized vendors. The scope of SITC includes the following:

1. Computing Hardware and Network equipment
2. Up-gradation of existing MAM and Integration with the new.

3. Specification

3.1.   Computing Hardware and Network equipment

The successful bidders shall supply server, storage and networking equipment required for the upgradation of the technical infrastructure. The details of the hardware/networking equipment are given below:

3.1.1. **Server :** The server shall have following minimum configuration :

S.N.	Component	Description
A	Processer	1x 12Cores/24 Threads, 18M Cache, base frequency 2.1Ghz or better. The system should have support for dual CPU configuration.
B	Memory	32GB DDR4 RDIMM Expendable upto 512 GB with at least 50% free RDIMM slots.
C	Storage	a. 2 x 960GB SSD SATA Configured for RAID 1. b. 2.4TB 10K RPM SAS 12Gbps. c. Un-configured RAID Controller.
D	Motherboard (Chipset)	a. UEFI BIOS Boot Mode with GPT Partition configured for Cube Workflow.

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		b. Internal USB 3.0 Card for hosting Cube Workflow dongle.
E	Power Supply	Dual, Hot-pluggable.
F	Slot Support for Expansion cards	PCIe Slots 5x16 + 1x4 slots.
G	Network	a. Quad Port 10GbE NIC (Ethernet)3.0 customized for Cube Workflow. b. Dual Port 16Gb Fibre Channel HBA
H	Additional Networking Requirements	12 x Networking Cable, 10GbE SFP+ to SFP+.
I	Indicators	System shall have feature of visual indicators (LED/LCD)) for system Health, Network and Power.
J	OS Support	Microsoft Windows Server 2019 Std or latest Any license upgrade required for windows operating system to run the server along with Cube Workflow should be provided along with.
K	Redundancy	System shall be supplied with Redundant Fans and Power Supplies.
L	Additional Requirements	a. The server should be properly configured as per Cube-Tech Specification. b. The server should be robust for 24x7/365 operations. c. The Server should be equipped to fully support existing interconnections with the existing hardware as per Cube Workflow. d. The Hardware customization for proper functionality of Cube Workflow is to be provided. e. The Hardware will be put under quality check for seamless functionality of Cube Workflow.
M	Form Factor	Chassis with up to 8x2.5" Drives Rack-mount (2U or 4U) Rails with Cable Management.
N	Regulatory compliance	Bureau of Indian standards (BIS) Marking Regulatory for India.

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3.1.2. **Storage :** The storage shall have following minimum configuration

S.N.	Component	Description
A	Storage Type	NAS
B	Memory	4x 8GB DDR4 (32GB) or better.
C	Storage Controller	280TB RAW and usable120TB minimum storage for Cubetech workflow.(12TB Enterprise 7.2K RPM 3.5" SAS 12Gb/s Hard Drives x 24 HDDs). 2x12Gb SAS EXP Port for upgrade storage.
D	Network	a. HOST Port 8x1G iSCSI ports +2x host board slot(s) for Cube workflow integration. b. Onboard 8x1GbE iSCSI Ports. c. Host board with 2 x 10 GB/s iSCSI (SFP+), type1 x 2 (loaded with transceivers).
E	Power	Dual, Hot swappable, Redundant PS.
F	Form Factor	Supporting Physical Architecture – a. 1 x Rack mount kit for rack installation. b. 4U/24 bay (for Drive). c. 24 x drive trays.
G	RAID Option Support	RAID 0, RAID 1, RAID 3, RAID 5/5F, RAID 6/6F, RAID 10, RAID 30, RAID 50, RAID 60
H	SUPPORTED OS	Microsoft Windows Server 2019 or (latest till date).
I	Safety Standards	Safety: UL, BSMI, CB. Electromagnetic compatibility: CE, BSMI, FCC.
J	Additional Requirements	a. NAS should have Hot swappable dual Controllers. b. Web Based Management software or interface for NAS. c. NAS should have cloud-integrated unified storage for future integration. d. NAS should have object storage and cloud gateway for easy access.

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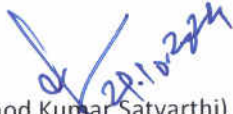Asstt. Engineer (IT Div.)

		e. NAS should have dual redundant controller subsystem for uninterrupted operation. f. The NAS should be compatible with our existing Hardware Server hosting Cube Work Flow. g. It should be possible dedicate a share solely for transfer of data from Cube Work Flow. h. The Vendor shall also be responsible to make a copy of selected data from our existing storage pool on to the NAS and provide a verification of all successful transfers. i. The NAS should be equipped to run in 24x7 365 environment for immediate access of data. j. The NAS should support creation of user profiles with Admin and other roles whereby given a user access control in the system and only selected shares of the NAS should be accessible as per allocation. k. The vendor shall properly integrate NAS with existing Cube Work Flow system.

3.1.3. **Networking Equipment:** The networking equipment shall have following minimum configuration :

S.N.	Component	Description
A	Type	Managed Network Switch
B	Quantity	02
C	Form Factor	Rack mount (1U or 2U)
D	Ports	24 Ports 10 Gigabits/ Multi-Gigabits
E	Gigabit Uplink Port	2-Port SFP/SFP+ (Combo) for fiber Uplinks
F	Working Mode	a. Layer 2 VLAN support for traffic segmentation. b. Auto denial of service (DoS) prevention.

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		c. Quality of service (QoS) for traffic prioritization.
G	Routing Protocol	a. IGMP snooping V1, V2 and V3 support for multicast optimization. b. Loop prevention and broadcast storm controls.
H	Power Supply	Internal power supply eliminate power brick with active fans for whisper quiet operation.
I	Maximum Operating Temperature	0°C to 40°C (32°F to 104°F)
J	Management Features	Web based management CLI (Command line interface) SNMPv1/v2c/v3 & cloud based managements options
K	Security feature	ACLs (Access Control List) Port security DHCP snooping
L	Stack capability	Yes (Purpose: ability to combine multiple switches into a single logical unit)
M	Future Proofing	Network switch that support future network growth and advancement
N	Additional Requirement	Link Aggregation to add redundancy and increase your network speed (Static LAC and LACP supported).

3.2. Upgradation of existing media assets management system and Integration with the new:

The successful bidder shall be responsible for migration of existing application(/s) along with data(Media assets and Metadata) on to the upgraded/new system provided by the bidder. The system provided by the bidder shall be fully integrated with the existing Storage Area Network as well as LTO tape drive in order to made it functional as per Prasar Bharati requirement. Scope of the supply/work towards upgradation/integration shall include, but not limited to, the following:

S.N	Description
A	Audio preview in Cube Workflow: Necessary modules for preview/listening of audio assets available/ingested in the MAM shall be provided.
B	Meta Data: 1. Provision to add new main/subcategory & other fields in the meta data filed to be provided.

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		2. The meta-data field to add synopsis/description of the assets shall be provided in the MAM along with the other fields. 3. Provision for uploading the meta-data/child assets for the media in jpg, pdf format. Necessary modifications in the MAM(Cube Workflow) needs to be incorporated.
	C	Customised Reports: Provision for generation of customised reports for the available assets in the MAM in .xls/.csv/.pdf format shall be incorporated. Such report may have provision of reporting of assets details including Titles, casts/artists, duration, size, date of recording, main/subcategory and other available meta data in the system.
	D	Provision for providing remote access to the MAM through web browser in order to preview the media or search the available assets to be provided through LAN/WAN.
	E	The MAM shall be configured to have storing/preserving the data as per details given under: 1. Media in high resolution & metadata on NAS 2. Media in high resolution & metadata on LTO tapes through attached LTO drive 3. Media in high/low resolution along with meta-data on SAN 4. Provision for exporting the media/metadata from the system as per the requirement.
	F	The existing MAM Application along with the required/modified features shall be installed and configured on the new server hardware, which has been envisaged in this tender.
	G	The upgraded system shall be integrated with the existing system. Brief details of the existing system is as under: Application: Cube Work Flow(CWF) Server OS: Windows server 2019 Std Server HW:Dell PowerEdge R720 LTO: Dell ML3 LTO-7 SAN:Dell Unity 400 RAID:5
	H	Migration of existing data/application: The successful bidder shall be responsible for migration of existing application(/s) along with data(Media assets and Metadata) on to the upgraded/new system provided by the bidder. Brief details of the data available on the existing system is given below: No. of records/media assets : 140000(approx.) Size of data: 20 TB(SAN)

3.3. **Bill of material** The Bill of material of item wise requirement is given as below:

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S.N	Item Title	Description	Make/Model (to be offered in the solution)	Quantity
A	Server	As per specification/para 3.1.1		01 No.
B	Storage	As per specification /para 3.1.2		01 No.
C	Networking Equipment	As per specification /para 3.1.3		02 Nos.
D	Up-gradation/ Integration of the system including Migration of the data/services.	As per specification/para 3.2		01 No.
E	Any other item required to comply with Prasar Bharati requirement (Optional)	Any supplies/services may be quoted by the bidder in order to complete the supply/work as per Prasar Bharati requirement, if found necessary.		01

4. General Terms & Conditions

4.0.1 All the quoted product should be field proven technology &OEM of the product should be in business for at least five year.

4.0.2 The technical offer submitted by the bidder must have page numbers indicated on it.

4.0.3 Undertaking towards acceptance of ATC should be submitted on Bidder's Letter Head at the time of bid submission.

4.0.4 Bidder should submit 'Make In India' declaration.

4.0.5 Any available higher parameters of the technical specifications would also be acceptable.

4.0.6 Malicious Code Certificate :

   The seller should upload following certificate in the bid :-

   (a) This is to certify that the Hardware and the Software being offered, as part of the contract, does not contain Embedded Malicious code that would activate procedures to :

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    i.   Inhibit the desires and designed function of the equipment.

    ii.   Cause physical damage to the user or equipment during the exploitation.

    iii.   Tap information resident or transient in the equipment / network.

(b) The firm will be considered to be in breach of the procurement contract, in case physical damage, loss of information or infringements related to copyright and Intellectual Property Right (IPRs) are caused due to activation of any such malicious code in embedded software.

4.0.7 Comprehensive onsite warranty shall be provided for trouble free operation of hardware for a minimum period of five years or higher from the date of acceptance of material in good condition.

4.0.8 Dedicated / toll free Telephone No. for Service Support : BIDDER / OEM must have Dedicated / Toll Free Telephone No. for Service Support.

4.0.9 OEM shall have its Service Support Centre in DELHI / NCR.

4.1. Pre-Bid Meet:

A pre-bid conference will be held at an appropriate time before the submission of the bid to bring clarity to all the prospective bidders in respect of the requirement of technical specifications. The date & Venue shall be intimated to all the prospective bidders separately. The prospective bidders are required to submit their queries (if any) in writing so as to reach Central Archives PB at least three working days before the pre-bid conference.

4.2. Submission of Bids:

4.2.1 Bidders shall submit detailed printed literature & schematic/block diagrams along with their detailed labeling of various networking equipment / accessories / parts and protocols followed by Cube Work Flow system while communication among CWF client, server and storage systems.

4.2.2 Bidders should submit two packet bid i.e. technical bid and Financial Bid.

4.2.3 Unpriced price-bid shall be submitted along with the technical bid for the purpose of technical evaluation. Model/make of the offered products/supplies shall be indicated. Price for these items **shall not be indicated** in the unpriced price-bid, to be submitted as a part of technical offer/bid. Revealing of prices in the technical offer may lead to rejection of the bid.

4.2.4 Prices of the items shall be quoted/revealed only in the price bid.

4.2.5 A letter from Hardware OEMs that none of the quoted product/model is nearing end of life.

4.2.6 Back to Back support commitment from various OEMS for the warrantee period of Five years.

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4.3. **Deviation:**

4.3.1 Bidders should clearly read and understand all the term and condition, specification etc. Mentioned in the bid. Bidders should declare that there is No deviation in the offer and submit the certificate of same in the prescribed format (Annexure).

4.4. **Tender Evaluation:**

4.4.1 The tender should be technically evaluated on the basis of conformity of Bid to Technical specifications.

4.4.2 The technical bid/offer complying with the technical specification shall only be qualified technically and considered for opening of the financial bid/offer at subsequent stage.

4.4.3 Technically qualified bidders will be evaluated for financial Bid.

4.5. **Pre Dispatch Inspection & Supply:**

4.5.1 All the software & Hardware would be inspected before dispatch by Indenter.Pre dispatch inspection would comprise complete testing including functional test and various measurement. The pre-dispatch inspection shall be done by authorized representative of Central Archives.

4.5.2 The Bidders will give a notice in writing to the indenter one week before the commencement of inspection. Incase inspection outside Delhi, the expenses on travel, accommodation etc. for Central Archives inspecting officer would be borne by Central Archives.

4.6. **Installation, Testing& Commissioning:**

4.6.1 ITC will be carried out at Central Archives New Delhi under supervision of a team of officers of Central Archives.

4.6.2 Server, Storage, Network switches etc. shall be installed in rack available in Central Archives and shall be connected in LAN environment.

4.6.3 Complete system be tested by engineers of Central Archives for smooth functioning.

4.6.4 All password, operational key for software & hardware shall be handed over to Central Archives officers.

4.6.5 Test report should be submitted for complete system (Hardware &software) installed at Central archives.

4.6.6 After completion of above activities, SITC Certificate shall be signed by Central Archives and after signing of SITC certificate, the system shall be considered as commissioned.

4.7. **Training:** Five day comprehensive training to 5 user decided/Nominated by Central Archives on the all model including user management and system administration.

4.8. **Project Implementation:** The SITC work will have to be completed within 45 days after the placement of work order.

4.9. **Security Deposit/ Performance Bond:**
The successful bidder, within 30 (Thirty) days of the receipt of order/advance order/letter of intent, will be required to send security

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deposit of (5% of Cost of Bid) in the form of Account Payee Demand draft, NEFT/RTGS from any scheduled bank(s), Fixed Deposit Receipt (FDR), Bankers Cheque or Bank Guarantee from an Indian scheduled commercial Bank favour of *DDO ,Prasar Bharati Central archives, Central & North Zone, New Delhi.*

4.10. Payment Terms:

The supplier will submit bill for 80% of the material/equipment basic cost and 100% of the GST applicable on the total basic amount of material/equipment supplied along with a copy of Inspection Notes and Provisional consignees receipt certificate to Competent Authority for making payment. The bill for balance 20% of material/equipment cost along with 100% installation/Erection, Testing & commissioning charges, if any, shall be submitted by the suppliers after receipt of final consignees receipt certificates and satisfactory installation /Erection, Testing & commissioning certificate whichever required. (Note: GST shall be paid only once against an order. Supplier will submit invoice accordingly).

4.11. Replacement/Rectification:

In the event the stores supplied or SITC carried out against the contract are found to be defective, the supplier/contractor will have to take back the defective materials at his own cost and replace/rectify the defects of the Stores/SITC free of charge without loss of time. The supplier will not be entitled to dispose of the store/equipment/material given for replacement/rectification without the prior permission of this Organization. All charges concerned with the rectification including fright charges will borne by the supplier/contractor.

4.12. Warranty & Maintenance:

4.12.1 The software & hardware shall be warranted for trouble free operation for a minimum period of *five* years from the date of commissioning.

4.12.2 The bidder shall submit a letter from OEM for confirmation of back to back support commitment for five years from the date of commissioning at Central Archives in respect of all the offered hardware & software. In addition to initial Support commitment, tenderer will have to submit a copy of support renewal contract with each OEM to Central Archives every year.

4.12.3 Bidder shall provide round the clock support for satisfactory working of complete system.

4.12.4 Bidder shall try to sort out the problem by providing remote support (Over Internet).

4.12.5 However, if it is not possible to rectify the fault remotely, Onsite support for Replacement / servicing / labor / debugging of software / reinstallation/reconfiguring of software etc. should be provided free of cost.

4.12.6 No separate charges will be paid for visit of engineers for attending to faults and repairs or supply of spare parts.

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4.12.7 After the fault is reported, it is to be got rectified immediately be the tenderer. Critical fault shall be attended within six hours and non – critical fault shall be attended within Next Business Day of reporting. The bidder will have to provide 99% of uptime on annualized basis at each station.

4.12.8 Bidder will assign a call tracking number for every fault reported. Each case will be considered closed only after it is settled to satisfaction of Central Archives.

4.12.9 Bidder will ensure that the existing data along with associated text, audio, metadata etc. is transferred successfully upon any hardware/software change, loading of software patches as well as upgrade.

4.12.10 Bidder will provide checklists of maintenance actions to be performed on daily, weekly and monthly basis. Tenderer will also extend assistance / help to Central Archives in issue of Guidelines / application note / procedure etc. for administration & maintenance of the system from time to time.

4.12.11 It will be the responsibility of tenderer to ensure supply and installation of all upgrades and patches of software as soon as these are released during the warrantee period at free of cost.

4.12.12 Bidder shall have to provide assistance for making changes / modifications in system database.

ANNEXURE

(Format for submission & NIL Deviation Certificate)

NIL DEVIATION CERTIFICATE

Notwithstanding anything mentioned in our bid, we hereby accept all the terms and conditions of this Tender Document without any reservations whatsoever. We hereby undertake and confirm that we have understood all the specifications, stipulations, terms and conditions as mentioned in this Tender enquiry.

I hereby declare that – There is no deviation in the offer.

Signature of Authorized Signatory of Bidder

Name:

Designation:

Date:

Place:

Seal of Organization:

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