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

Dated: 30/09/2025

File No CA/IT-MAM/2023-24

Subject: Industry feedback on Technical Specification for Supply, Installation, Testing and Commissioning (SITC) of hardware/ software towards the up gradation of on-premise media Asset Management system and migration of Archived content at Central Archives Prasar Bharati (DD).

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 up gradation of on-premise media Asset Management system and migration of Archived content at Central Archives Prasar Bharati (DD). 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 up gradation of on-premise media Asset Management system and migration of Archived content at Central Archives Prasar Bharati (DD). Response may be furnished through email by the bidders by 20/10/2025 on to the following e-mail address:

Email: archives@prasarbharati.gov.in

Encl.: Technical Specifications

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Asstt. Director (Engg)

Prasar Bharati Central Archives

Akashvani Bhawan

New Delhi-110001 (India) Telephone: 011-23421271 TECHNICAL SPECIFICATIONS FOR SUPPLY TESTING AND COMMISSIONING (SITC) OF HARDWARE / SOFTWARE TOWARDS THE UP-GRADATION OF ON-PREMISE MEDIA ASSET MANAGEMENT SYSTEM AND MIGRATION OF ARCHIVED CONTENT AT CENTRAL ARCHIVES, PRASAR BHARATI

1. OBJECTIVE

Prasar Bharati (PB), the Public Service Broadcaster of India, fulfils the objectives of public service broadcasting through Doordarshan (DD) and Akashvani. Prasar Bharati intends to upgrade its Media Asset Management system, a digital content management solution that streamlines the processes of ingest, storage, archival and retrieval of digital asset at Doordarshan Archives, Akashvani Bhawan New Delhi.

2. SCOPE

The scope of this project shall be up-gradation of existing Media Assets Management System (MAM) at Prasar Bharati Archives by inviting bids from OEMs or its authorized vendors. The scope of SITC includes the following:

- 2.1 Computing Hardware & Softwares
- 2.2 Setting up of the Up-gradation in media assets management system
- 2.3 Migration of data from existing MAM systems to the up-graded system

3. SPECIFICATION

3.1 COMPUTING HARDWARE

For the up-gradation of the MAM setup for DD Archives the required server and workstations hardware are given below:

S.No.	Component	Description	
1	Form Factor	Rack mountable	
2	CPU	1 X 8 Cores or higher	
3	RAM	32GB or more	
4	Network Ports	1G port two or more	
5	os	Windows server 2019 or latest	
6	Power supply	Power supply Redundant	
ii.	MAM DATABASE SERVE	R: 2 Nos.	
1	Form Factor	Rack mountable	
2	CPU	2 X 8 Cores or higher	
3	RAM	32GB or more	
4	Network Ports	1G port two or more	
5	Local IOPS	minimum 1000	
6	OS	Windows server 2019 or latest	
7	Power supply	Redundant	

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iii.	MAM CORE/APPLICATIO	N SERVER: 1 No.		
1	Form Factor	Rack mountable		
2	CPU	2 X 8 Cores or higher		
3	RAM	32GB or more		
4	Network Ports	1G port two or more		
5	OS	Windows server 2019 or latest		
6	Power supply	Redundant		
iv.	MAM Transfer/Render Se	erver: 1 No.		
1	Form Factor	Rack mountable		
2	CPU	2 X 8 Cores or higher		
3	RAM	32 GB or more		
4	Network Ports	1G port two or more & 10G fiber one or more		
		ports		
5	OS	Windows server 2019 or latest		
6	Power supply	Redundant		
v.	MAM Proxy Conversion S			
1	Form Factor	Rack mountable		
2	CPU	2 X 16 Cores or higher		
3	RAM	64 GB or more		
4	Network Ports	1G port two or more & 10G Fiber one or more port		
5	OS	Windows server 2019 or latest		
6	Power supply	Redundant		
vi.	MAM QC Servers: 1 No.	Redundant		
	Processor	Intel CPU with total 16 Core (Non-Hyper		
1	Processor	threaded cores) with 2.6+ Ghz.		
2	RAM	32 GB or more		
3		500 GB SAS (1500 rpm) Disk x 2 Nos in		
3	System HDD	RAID1		
4	Network	Gigabit/10G connectivity		
4		Windows 2019 R2 Server- Standard edition		
5	OS	64bit		
vii.	MAM Transcoder Server:	1 No.		
1	Form Factor	Rack mountable		
2	CPU	2 X 16 Cores or higher		
3	RAM	64 GB or more		
4	Network Ports	1G port two or more & 10G Fiber one or more		
The second		port		
5	OS	Windows server 2019 or latest		
6	Power supply	Redundant		
viii.	Video Servers: 2 Nos.			
1	Form factor	Rack Mountable with dual redundant power supply		
2	CPU	2 X 16 cores Gold processor		
3	RAM	64 GB or more		
4	OS Drive	2 X 600GB or more		
5	Data Drive	3.3 TB or more usable in RAID		
		configuration		
6	OS	Windows server 2019 or latest		
	Video I/O	8 SD/HD SDI bidirectional ports		
0.207				
7		4 X 1G ports, 2 X 10G SFP+ fiber ports		
7	Network Ports	4 X 1G ports, 2 X 10G SFP+ fiber ports PCIe based 5GB or better		
7		PCIe based 5GB or better		

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2	CPU	8 Cores or higher		
3	RAM	32GB or more		
4	System Drive	128 GB or more SSD		
5	Data Drive	500GB SSD		
6	Network Ports	1G port two or more		
7	HDMI/USB Ports as required			
8	Operating System	Windows 10/11 64 bit		
x.	Online Storage	<u> </u>		
1	Capacity	100 TB usable should be based on Open technology and should not require any proprietary tools to access the storage.		
2	Deep Archive or Back up	Usable storage capacity: 480 TB		

3.2 **COMPUTING SOFTWARES:**

S.No		Item	Qty.			
1.	Dalet Galaxy (Latest version)					
	Data and Workflow Management Core Licenses with SQL CAL licens					
	1.1	Datet Core server Licenses	1No.			
		Dalet Client Licenses				
		Dalet Windows Client MAM License	10 Nos			
	1.0	Dalet (OneCut) advanced Audio/Video Editor module inside MAM client	5 Nos.			
	1.2	Dalet Webspace Client License utilised for Browser based MAM client.	10Nos.			
		Webspace Storyboarder module utilized for quick editing on browser- based MAM client	5 Nos			
		Ingest and Import Licenses				
		Ingest license to control SDI ingest & VTR	8 Nos			
	1.2	File based Ingest license utilized for import of Video & Audio Files	4 Nos			
	1.3	Metadata Import license utilized for importing metadata files like XML or Text	1 No.			
		Media Management Back Office Licenses				
	1.4	Media Processing license utilized for converting files to proxy media format	11 Nos			
		Dalet Webspace Server Utilized for stream proxy video on browser based MAM client	1 No.			
		Export and Distribution				
	1.5	Metadata file-based export utilized for exporting metadata to external location (XML export)	1 No.			
		Media file-based export utilized for exporting media to external location (media files)	1 No.			
		Archive				
	1.6	Archive Storage integration utilized for controlling archive and restore process	4 Nos.			
	1.7	Dalet Galaxy support				
	10000	Extended 24x7	1 No.			
		Dalet Brio - SDI Ingest ports connected with VTR output				
	1.8	8 SDI ports controlled by Dalet Windows Client Utilized to ingest media from VTR	1 No.			
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4. TECHNICAL FEATURES AND SPECIFICATIONS of MAM

4.1 ESSENTIAL FEATURES OF THE PROPOSED SYSTEM

- 4.1.1 The upgraded system should support file based ingest. It should support natively (without re-digitizing/ trans-coding) XDCAM HD422 (MPEG-2 long GOP (12 frames) 4:2:2@HL) 50Mbps with 8 bit quantization data in MXF OP1a file format and for SD: DVCPRO 50 (8-bit, 4:2:2) in MXF Op1a or MXF Op Atom file format or IMX 50 (8-bit, 4:2:2), in MXF Op1a file format.
- 4.1.2 The upgraded system should facilitate MXF File format. Necessary hardware and software should be offered with the system.
- 4.1.3 The upgraded system should support multiple broadcast quality codecs and MXF wrappers.
- 4.1.4 The offered system should support following Inputs/Outputs and Video & file formats:-

1. File input/output		Through FTP		
2.	Video formats	HD: 1920x1080/50/I (16:9 aspect ratio) conforming to SMPTE 292M and ITU-R BT. 709 (CIF) (HD-SDI: 1.485 Gb/s) SD: 625 line (4:3/16:9 aspect ratio) conforming to SMPTE 259M and ITU-R BT 601 (SD SDI: 270 Mb/s).		
3.	MXF formats	HD: Sony XDCAM HD422 {MPEG-2 long GOP (12 frames) 4:2:2@HL} 50Mbps with 8 bit quantization data in MXF OP1a file format SD: DVCPRO 50 (8-bit, 4:2:2), in MXF Op1a or MXF Op Atom file format or SD: IMX 50 (8-bit, 4:2:2), in MXF Op1a file		

- 4.1.5 The proposed solution shall work under Media Asset Management (MAM) system.
- 4.1.6 Upgraded Media asset management should take care of File based ingest operations, baseband ingest, metadata creation, media analysis browsing, search, proxy generation, multilayer video editing, file based QC, Near Line storage and should have feature to integrate with disk based deep archive solution and end to end content management.
- 4.1.7 The proposed solution shall support growing file editing on the MAM editing client, where users can access a file as it is recorded or while the proxy is generated. The system must automatically refresh the growing proxy every few seconds to enable clipping and editing in close to real-time.

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- 4.1.8 The proposed solution shall allow creation, viewing and modifying the metadata of all the media file to be archived.
- 4.1.9 Metadata should include at least title, ID, source, media number, date, Time Code etc. Metadata fields should be customizable. Metadata should be added automatically and also manually.
- 4.1.10 The proposed solution shall provide powerful metadata management capability for effective cataloguing, search and retrieval.
- 4.1.11 Indexing of clips should be systematic for easy searches.
- 4.1.12 The proposed solution shall create low resolution copy and thumbnail of all the media file to be archived. The low-resolution copy should be frame accurate and time code synchronized with the high-resolution content. The low-resolution copy should have data rate up to 1 5 Mbps.
- 4.1.13 The proposed solution shall be able to link the metadata, low resolution copy, full resolution Video file stored on a Storage and disk based deep archive Library.
- 4.1.14 The proposed upgraded MAM solution shall have the facility to upload & restore of the content on cloud from/to near line storage, in future. Required software and Licenses need to quote along with solution.
- 4.1.15 The proposed solution should provide means to run all media related operation in a back office server farm in a way that does not disrupt user work i.e., users should not be blocked from continuing their work while the system runs process such as rendering, transfer, transcoding of copying of media.
- 4.1.16 All of these back office operations should be monitored and the user should have a special monitoring application that will enable him to view his jobs and to monitor their status and progress.
- 4.1.17 The offered MAM should have ability to manually delete a media essence (high resolution, proxy resolution...)
- 4.1.18 The offered MAM should have ability to manually delete an asset with its media essences.
- 4.1.19 The offered MAM should have ability to set purge policies to automatically delete essences and or assets.

4.2 ARCHITECTURE OF UPGRADED MAM SOLUTION

The Software and hardware of the proposed solution shall have the following features;

- 4.2.1 The proposed solution shall be based on client-server architecture capable of scaling up without any system restart.
- 4.2.2 The proposed solution shall integrate with Active Directory for users and group management.
- 4.2.3 The proposed solution shall run on Windows server operating system to match the existing environment.

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- 4.2.4 The system should rely on a Microsoft MSSQL database to match the existing environment.
- 4.2.5 The system should rely on 'open storage' (native CIFS).
- 4.2.6 The proposed solution should have international reputed standard generic IT hardware.
- 4.2.7 The proposed solution should provide comprehensive windows-based administration module that enables administrators to control every aspect of the system from a centralized user interface.
- 4.2.8 The proposal UPGRADED MAM solution should have their native transcoding to produce proxy content.
- 4.2.9 The upgraded MAM solution should have 8 numbers of HD /SD SDI ingest ports & 4 numbers of playout ports in 2 or more video servers. The server should have a facility to ingest NDI/SRT feeds so bidder should offer necessary hardware & software.
- 4.2.10 The existing MAM user client licence can be utilised with upgraded software to increase the number of licences.
- 4.2.11 The system should be capable of storing not only media files (such as Video and Audio) but also other kinds of documents as standard assets; these documents should include at least Office documents, stills, zip, and graphics.
- 4.2.12 The system should allow for metadata to be assigned to these non-media assets in the same manner that it is assigned to media-oriented assets.
- 4.2.13 System should be able to automatically detect the scene change in the video and add marker to optimize work done by archival team.
- 4.2.14 Core MAM client functionality requirements of the proposed solution shall be as follows:
 - 4.2.14.1 Ingest/Browser/Admin/Archival User can create their own workspace based on his or her role and this workflow can be shared among users.
 - 4.2.14.2 User should be able to do normal search but also can make a search profile that can contain any metadata field which is indexed, this search criteria can be saved as a profile and can be shared among users.
 - 4.2.14.3 Chat Module should allow not only user to interact like text chatting but allows them to share the video /audio/images and other type of assets in system directly from chat window.
 - 4.2.14.4 MAM Client should provide the capabilities of dragging and dropping the asset like Video, Audio, PDF, and Image asset for file based ingestion apart from Watch folder.
 - 4.2.14.5 There should be an option to add web links like http://google.comand open any web link inside MAM client so that user don't have to use two interfaces.

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- 4.2.14.6 Search result view should be customized and results should be saved as CSV or print option for various purposes.
- 4.2.14.7 System should provide automatic media analysis while import of media.
- 4.2.14.8 MAM client interface preferably should have option to have window like home screen so that it is easy for user to adapt.

4.3 USER MANAGEMENT

- 4.3.1 There shall be a dedicated module for user management in the MAM System.
- 4.3.2 The proposed system should provide a centralized configuration of users and groups information (that is added on top of the information provided from Active Directory). The information should include at least:
 - 4.3.2.1 Personal information
 - 4.3.2.2 Access right information to different areas in the solution
 - 4.3.2.3 Layout (Screens, shortcuts, colors, fonts etc.)
 - 4.3.2.4 Metadata access rights
 - 4.3.2.5 Specific module preferences (for example editor module preferences)
- 4.3.3 Users activities shall be recorded as logs and shall be available as users wise report.

4.4 WORKFLOW MANAGEMENT

- 4.4.1 The proposed solution should propose a BPM (Business Process Management) workflow engine based on standard BPMN 2.0
- 4.4.2 The proposed solution should include a BPM designer to create and update custom workflows, as well as support custom scripting.
- 4.4.3 The BPM workflow engine must be natively integrated within the MAM so as to leverage the metadata stored in the MAM.
- 4.4.4 The proposed workflow engine should be able to mix user tasks, performed by human operators, with services tasks like file based ingest, edit, metadata tagging, archiving etc.
- 4.4.5 The application should have graphically designed workflows, combining and organizing the simple workflow activities.
- 4.4.6 The workflow engine itself should be Open Source and remain for third party developers to integrate with.
- 4.4.7 The workflow management should be done from the MAM interface.

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4.5 BASE BAND AND FILE BASED INGEST AND ASSET CREATION

- 4.5.1 The proposed solution should support the following type of media ingest into the system:
 - 4.5.1.1 Base band Ingest from VTRs to the main storage.
 - 4.5.1.2 File based ingest from HDD or Sony XDCAM VTR All ingested material (high resolution, browse quality etc) is stored in a centralized production storage that is directly available to all users of upgraded facility simultaneously.
- 4.5.2 File-based media including video, audio, images, PDFs, Word documents, and other non-media files—can be imported into the MAM system either via monitored watch folders or by dragging and dropping into the client interface, and should be managed through the workflow.
- 4.5.3 After ingest, the proxy-conversion server must process at least 10 files to generate storage proxies. Additionally, all entered or imported metadata should be automatically indexed by Core servers to enable efficient searching at any interface.
- 4.5.4 Ingest from VTRs and live feeds using control over video servers directly into the main storage.
- 4.5.5 The proposed solution shall able SDI live feed Ingest facility.
- 4.5.6 The proposed solution shall be able to perform Crash Recording operation for a live SDI feed. The delay should not be more than 3 seconds.
- 4.5.7 The proposed solution shall able to perform schedule recording for an SD/HD SDI feed.
- 4.5.8 The proposed solution shall be able to generate the video proxy resolution while the system process the file based and Base band Ingest.
- 4.5.9 The proposed solution shall be able to perform crash recording controlling VTR with the serial protocol or IP based.
- 4.5.10 The proposed solution shall be able to direct import of media from cameras (such as P2 or XDCAM) using direct file transfer.
- 4.5.11 The proposed solution shall be able import of media from watch folders automatic transcoding to the desired formats.
- 4.5.12 Ingested material should be automatically transcoded to low resolution browse quality files which is available to the users.
- 4.5.13 The proposed solution shall be able to notify the users for a new file base ingest.
- 4.5.14 The proposed solution shall be able to access right should be configurable to view or modify metadata.

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4.6 Browsing and Cataloguing System features:

- 4.6.1 The proposed solution shall able to run a full-text search over all the metadata fields.
- 4.6.2 The proposed solution shall able to run an advanced search query combining queries on some specific metadata fields.
- 4.6.3 The proposed solution shall be able to select one or multiple files and move them (move, cut, copy) into the folder structure.
- 4.6.4 The proposed solution shall able to protect a File from its deletion.
- 4.6.5 The Browsing and cataloguing system should be remote accessible with a web-based application.
- 4.6.6 The proposed solution shall be able extend the operations across multiple sites using a powerful remote web access tool.
- 4.6.7 The web access tool should be an easy-to-use interface to retrieve, preview and select shots of media assets and metadata. It should also provide collaborative media access for storyboarding, rough cut editing, and collaborative clip gathering.
- 4.6.8 The proposed solution shall support flexible metadata schemas.
- 4.6.9 The required metadata fields can be customised at any time during the project even after the project is running.
- 4.6.10 There shall be no restriction on the amount or type of metadata fields and not predefined or fixed metadata schema.
- 4.6.11 Metadata can be exported and imported to and from external system using XML in configurable schemas.
- 4.6.12 The Migrated metadata and newly file-based ingested metadata should be in the same format and tightly integrated with Video/Audio files.

4.7 MAM Client Basic video editing Features:

The proposed solution should provide native editing tools on all ingest and social media mam Clients system that allows for at least:

- 4.7.1 The proposed solution shall be able to define per user which media essence the user can access and edit.
- 4.7.2 Allow various formats to be rendered within a single EDL.
- 4.7.3 Back office rendering, i.e. the edit bay should be available to work on other projects while the EDL gets flattened.
- 4.7.4 Allow editing to be performed on growing media files.
- 4.7.5 Provide easy to use shortcuts (JKL) and techniques to ensure fast editing and turnover of material.

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4.7.6 The proposed solution should allow for:

- 4.7.6.1 J-cuts and L-cuts
- 4.7.6.2 Possibility to edit/trim audio and video tracks independently of one another
- 4.7.6.3 Simple transitions (dissolve, wipes, squeeze)
- 4.7.6.4 Simple effects (transparency, contrast/ brightness/ colour adjustments)
- 4.7.6.5 Picture in picture and zoom effects
- 4.7.6.6 Aspect ratio management
- 4.7.6.7 Blur Including auto-tracking of faces for blurring
- 4.7.6.8 Feathering effect

4.8 Integration with Existing Craft Video Editing System:

- 4.8.1 The proposed solution should provide a tight integration with existing 4 nos. of FCP10/Adobe (Latest version) NLEs in order to exchange media files.
- 4.8.2 The FCP 10/Adobe (Latest version) NLE system should be able to access the MAM application to search the content and download the required material to NLE local storage.

4.9 INTEGRATED FILE-BASED QC

- 4.9.1 The proposed solution should offer broadcast-grade QC software which is tightly integrated with the proposed MAM solution, which enables the user to send content automatically for file-based QC and imports back the results of the QC process as metadata attached to the relevant asset.
- 4.9.2 The user should be able to follow up on the progress and status of the QC process from a centralized monitoring application embedded within the proposed solution.
- 4.9.3 The process of sending media to the QC device should be automatic without any user intervention, as well as provide ad-hoc means for users to send specific assets for QC.

4.10 MAM OPERATION MONITORING

- 4.10.1 The system should allow monitoring tools to check the media job status of the system.
- 4.10.2 The system should allow monitoring of all back-office media operations by authorized users through monitoring application/tool.
- 4.10.3 The monitoring tool interface should be customizable and administrator should be capable of adding metadata fields, changing the job priority.

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- 4.10.4 The monitoring tool should allow administrator to open the log file directly from the interface.
- 4.10.5 The monitoring tool should always be synchronized with back-end media process and should be accessible through windows or web client platform.
- 4.10.6 The system should allow the automatic email notification in case of job failure or success with set of customizable metadata field.
- 4.10.7 The system should allow the update of the metadata field based on the job failure or success.
- 4.10.8 The proposed system should have a chat module to share the content among users.
- 4.10.9 A simple click on shared content inside chat module should play or open the associated media.
- 4.10.10 The system should provide a graphical interface to see the linked or associated assets (Image, audio & Video) and to monitor the relationship between them.

4.11 WEB PUBLISHING

- 4.11.1 The proposed solution should be able to send media and metadata to CMS.
- 4.11.2 The proposed solution should allow retrieval and partial retrieval, editing, transcoding and publishing of content to social platforms (Facebook, X, YouTube etc.)
- 4.11.3 The proposed solution should be capable of transcoding content to various formats, frame rates, as per Prasar Bharati publishing rules.

4.12 AUDIT TRAIL

- 4.12.1 Any operation (like a title deletion for example) should be logged in a dedicated SQL database for reporting purposes.
- 4.12.2 This audit trail database should be accessible via SQL queries.
- 4.12.3 The list of operations logged in this audit trail database should be configurable by super users or administrator.
- 4.12.4 This list of operations that are logged in the audit trail should at least include:
 - 4.12.4.1 User login
 - 4.12.4.2 User logout
 - 4.12.4.3 Asset modification
 - 4.12.4.4 Title deletion

4.12.4.5 Title restore etc.

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4.12.5 In addition, every time an event is logged in this database, it should be possible to also save information about the asset that is concerned by the event, in order to later be able to build statistical reports on asset usage.

4.13 VIDEO SERVER SPECIFICATION

- 4.13.1 Total of 12 HD/SD SDI bidirectional ports in 2 or more servers. Ports can be configured as ingest or play out as per requirements.
- 4.13.2 System should provide various user tools to do following:
 - 4.13.2.1 8 or more VTR Control
 - 4.13.2.2 Print to Tape
 - 4.13.2.3 Multi-cam Record using Single Button hit, Multi-cam should be able to control multiple Ingest server.
 - 4.13.2.4 Crash and Schedule recorder
 - 4.13.2.5 Single User interface to control various record and playout port with Preview option of selected media
- 4.13.3 Support record and playback 1080/50i over XDCAM HD (50 Mbps) 4:2:2, Avid (DNxHD 145 Mbps) natively
- 4.13.4 Must support IP feed ingest NDI, SRT, RTMP
- 4.13.5 Record and playout video with embedded audio up to 16 audio tracks uncompressed at 20 or 24 bits 48K/sample
- 4.13.6 Support for VDCP and RS-422 control or some method to archive remote playback control from 3rd party controller / Automation
- 4.13.7 The licensed version of all ingest and playout software including Operating System, application software etc. are required to be supplied in original media. This software should be licensed in the name of Prasar Bharati.
- 4.13.8 The bidder will provide up-gradation of all the offered software free of charge during the guarantee period. The bidder will be required to give undertaking to this effect along with the bid.

5. MIGRATION OF DATA IN THE NEW SYSTEM

Migration of data from existing MAM system to the new upgraded system.

- 5.1 The proposed solution shall be capable of migrating existing media (proxy and high res.) and metadata to new system & must have all the media and metadata synced as of current MAM after migration.
- 5.2 High Resolution of Video/Audio files are available in. DV & .Aiff format on LTO-4 library need to migrate on upgraded system in .MXF format.
- 5.3 Low Resolution copy of Video/Audio files are available in .MP4 format on near line storage need to migrate on upgraded storage system in .MP4 format.

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- 5.4 Database of Archived Video/Audio files are available in Dalet Database server in .mdb format need to migrate on upgraded Database system in suitable open format.
- 5.5 The Migrated High-Resolution files, Proxy Files and Data based should be tightly linked to achieve frame accurate search and retrieval
- 6. Bill of material: The Bill of material of item wise requirement is given in Appendix-I

7. GENERAL TERMS AND CONDITIONS

- 7.1 Tenders are invited from the reputed bidders.
- 7.2 The bidder shall offer the upgradation of Media Asset Management System solution as per the requirement of Prasar Bharati.
- 7.3 Eligibility Criteria of Bidders:
 - 7.3.1 The bidder shall either be a Media Service Solution Provider (MSSP) or their authorized representative.
 - 7.3.2 MSSP shall provide a self-declaration certificate in respect of their services. In case, an authorized representative of the solution/service provider is the bidder, authorization certificates from the original service providers must be enclosed with the bid.
 - 7.3.3 The bidder or OEM shall have completed at least 5 projects related to Media Asset Management systems. Work completion certificates for such projects to be furnished.
 - 7.3.4 OEM must have ISO 27001: 2013 Certificate. Copy of certificates must be attached with bid document.
 - 7.3.5 The bidder/OEM must submit the certificate from existing OEM, MAM for authorization & services to migrate the audio and video content & database to upgraded MAM system.
 - 7.3.6 Bidder shall not have been blacklisted by any State /PSU/ Central Government in India for corrupt, fraudulent or any other unethical business practices or for any other reason. Bidder shall submit affidavit along with Technical Bid.
 - The bidder shall not be under liquidation, court receivership or similar proceedings, shall not be bankrupt. Bidder to upload undertaking to this effect with bid.
 - 7.3.8 Bidder must be able to present / demonstrate the Proof of Concept as per Client's requirements.
 - 7.3.9 Bidders are advised to check applicable GST on their own before quoting. Buyer will not take any responsibility in this regards. GST reimbursement will be as per actuals or as per applicable rates (Whichever is lower), subject to the maximum of quoted GST %

7.3.10 Toll free numbers shall be provided by the Bidder/OEM for Service Support. Details to be furnished along with the technical bid.

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- 7.3.11 Bidder/OEM must provide Escalation Matrix of Telephone Numbers for Service Support. Details to be furnished along with the technical bid.
- 7.3.12 Malicious Code Certificate: The bidder should upload following certificate in the bid:
 - 7.3.12.1 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:
 - a. Inhibit the desires and designed function of the equipment.
 - b. Cause physical damage to the user or equipment during the exploitation.
 - c. Tap information resident or transient in the equipment/network.

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, the bidder/supplier will be considered to be in breach of the procurement contract."

7.4 SUBMISSION OF BIDS.

- 7.4.1 The bidders should submit their bids in two parts i.e. Technical Bid and Commercial Bid as per the notice inviting tender (NIT). The technical bid shall consist of following documents duly indexed:
- 7.4.2 Certificates and documents enumerated under the Eligibility Criteria (7.3)
- 7.4.3 Solution document shall be the part of Technical bid which would include the following:
 - 7.4.3.1 The bidders should submit their proposed approach for SITC of this project.
 - 7.4.3.2 The bidders should submit their Technology and other details in respect of hardware, and software application.
- 7.4.4 Unpriced/price bid duly filled with all the details except the rates and prices quoted (As per Appendix-II). **Prices shall not be given with Technical Bid.**
- 7.4.5 The bidders should submit detailed data migration plan.
- 7.4.6 The tenders are liable to be rejected if any of the above information/documents is found missing in the technical bid/proposal.

7.5 Tender Evaluation:

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

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- 7.5.2 The Bid that fully meet the technical specifications shall be considered technically qualified.
- 7.5.3 Technically qualified bidders will be evaluated for financial Bid.

7.6 Installation, Testing & Commissioning:

- 7.6.1 ITC will be carried out at Central Archives New Delhi under supervision of a team of officers of Central Archives.
- 7.6.2 Server, Storage, Network switches etc. shall be installed in rack available in Central Archives and shall be connected in LAN environment.
- 7.6.3 Complete system be tested by engineers of CA for smooth functioning.
- 7.6.4 All password, operational key for software & hardware shall be handed over to Central Archives officers.
- 7.6.5 Test report should be submitted for complete system (Hardware &software) installed at Central archives.
- 7.6.6 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.

7.7 DEMONSTRATION

The tenderer shall be required to demonstrate the functioning of the software solution tendered. This will be part of the technical evaluation. Non-compliance of demonstration may liable to disqualify the tender. The following items shall be demonstrated as per date and time to be published and communicated in due course:

- 7.7.1 Proof of Concepts (POC) presentation of Applications with all functional modules of the offered solution.
- 7.7.2 Demonstration of the application using authentication, workflows and user management.
- 7.7.3 Incomplete offers shall be liable for rejection.
- 7.7.4 Prasar Bharati reserves the right to accept or reject any or all tender(s) without assigning any reason whatsoever.

7.8 DELIVERY/IMPLEMENTATION SCHEDULE:

- 7.8.1 04 (Four) month from the date of placement of purchase order including customization of upgraded MAM.
- 7.8.2 05 (FIVE) months for Data Migration.

7.9 **DELIVERABLES**:

7.9.1 Customized upgraded Media Asset Management system with user defined workflow, features and technical specification

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Asstt. Director(Engg.)

(Shyamli)

- 7.9.2 Migration of existing data as per the specification
- 7.9.3 Comprehensive Documentation on functionality, features and user guide.
- 7.9.4 Training for using the upgraded system.

7.10 TRAINING:

7.10.1 The bidder has to arrange 10 working days comprehensive training to the participants nominated by Prasar Bharati up to 15 nos. on User management, System administration, Operation & Maintenance of the Upgraded MAM System by the OEM or their certified trainer(s) at the site. The bidder has to provide the comprehensive training material in the form of hard copies as well as soft copies to the trainees during the training session.

7.11 Warranty & Maintenance Support:

- 7.11.1 On site comprehensive warranty and maintenance support for software & hardware shall be for minimum period of five years from the date of commissioning.
- 7.11.2 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.
- 7.11.3 Bidder shall provide round the clock support for satisfactory working of complete system.
- 7.11.4 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.
- 7.11.5 No separate charges will be paid for visit of engineers for attending to faults and repairs or supply of spare parts.
- 7.11.6 After the fault is reported, it is to be 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.
- 7.11.7 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.
- 7.11.8 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.

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- 7.11.9 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.
- 7.11.10 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 warranty period at free of cost.
- 7.11.11 Bidder shall have to provide assistance for making changes / modifications in system database.

8. COMPLETENESS OF SYSTEM & COMPLEMENT OF EQUIPMENT:

- 8.1 Completeness of the system is the responsibility of the bidder.
- 8.2 The successful bidder will be solely responsible for operationalization of the system to the satisfaction of Prasar Bharti Archives team as per the specifications.
- 8.3 In order to ensure the completeness of the system, any additional equipment/accessories which bidder feels necessary to complete the configuration should also be quoted. However, in such case they should provide proper justification for the additional equipment required. These items, if any, must be listed in the offered BOM.
- 8.4 If the bidder feels that the system required in the specifications may require additional features for better functionality, the bidder may quote such items as an optional item and provide full justification to decide its utility.

9. TECHNICAL LITERATURE:

The successful bidder will have to supply a set of technical user guide and installation manuals with respect to each of the equipment.

10. INSPECTION:

The inspection of material will be carried out by the authorized representatives/officials of the Prasar Bharati at New Delhi. The material will be accepted only after the same has been found satisfactory.

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Asstt. Director(Engg.)

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Indicative Bill of Material (BoM)

Sr No.	Item Description	Minimum Quantity	Qty. Units
1	Domain controllers Server	2	Nos
2	MAM Servers (Database, Core, Transfer, Proxy, QC, Transcoder servers)	7	Nos
3	24 Ports 1G & 4 Ports of 10G Fiber SFP+ managed Switch	2	Nos
4	12 Ports 10G SFP+ Fiber Switch	2	Nos
5	RDBMS Cals for database for MAM System	As required	
6	Media Asset Management Client license Software (Base band Ingest X 8 Nos, File Based Ingest Client X 2 nos, Social media client X 2 Nos, Admin client X 1 no)	13	Nos
7	Media asset management web-based client license (Browsing and cataloguing X 5 Nos)	5	Nos
8	Video Server with 6 Bi-Directional Ports	2 or more	Set
9	Storage solution with 100TB RAW with RAID 5/6 provisions with Dual redundant controller and power supply	1	Set
10	Backup System – Disk based archive storage with minimum 480 TB Storage capacity with 24 or more HDD slots.	1	Set
11	Work Stations with 24" FHD Display and Keyboard, Mouse, 2.0 Speakers etc	18	Sets
12	16X16 SD/HD SDI Router with 2 nos of 16 Push- Button Remote-control panel	1	Sets
13	17" Broadcast Monitors with SD/HD SDI inputs for Ingest Desk	2	Nos
14	16 SD/HD SDI inputs and Dual head output Multiviewer for Source monitoring with 55" 4K Display	1	Set
15	SD/HD SDI input 1RU rack mount Audio monitoring system with head phone.	2	Nos
16	SPG with GPS Antenna	1	Set
17	Digital LTC/NTP Clock	1	No
18	Digital Glues and Glues Frames as per requirement	1	Set
19	Installation Materials including Racks, Patch Panels, Cables, connectors, etc	1	Lot
20	Data migration services from existing LTO-4 Tape Library to New Disk based deep archive system.	1	Job
21	Installation, Testing, Commissioning and Training	1	Job

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Sr. No.	Description / Name of the Item	Make	Model	Qty.	Unit Price (₹)*	Total Price (₹)*
1	Domain Controllers Server			2		
2	MAM Servers (Database, Core, Transfer, Proxy, QC, Transcoder)			7		
3	24 Ports 1G & 4 Ports of 10G Fiber SFP+ Managed Switch			2		
4	12 Ports 10G SFP+ Fiber Switch			2		
5	RDBMS CALs for MAM Database			As Required		
6	MAM Client Licenses (Baseband Ingest X 8, File Ingest X 2, Social Media X 2, Admin X 1)			13		
7	MAM Web-based Client Licenses (Browsing and Cataloguing)			5		
8	Video Server with 6 Bi-Directional Ports			2 or more		
9	Storage Solution – 100TB RAW with RAID5/6, Dual Controller			1		
10	Disk-Based Archive System - 480TB			1		
11	Workstations with 24" Display and Accessories			18		
12	16X16 SD/HD SDI Router with 2 Remote Control Panels			1		
13	17" Broadcast Monitors for Ingest Desk			2		
14	Multiviewer with Dual Output and 55" 4K Display			1		
15	Audio Monitoring System (1RU Rackmount) with Headphones			2		
16	SPG with GPS Antenna			1		
17	Digital LTC / NTP Clock			1		
18	Digital Glues and Frames			1		
19	Installation Materials (Racks, Patch Panels, Cables, Connectors, etc.)			1		
20	Data Migration Services from Existing Tape Library to New Deep Archive			1 Job		
21	Installation, Testing, Commissioning, and Training			1 Job		

We hereby confirm that the prices for all the above items are quoted in the Price Bid submitted separately. We understand that the Technical Evaluation will be done based on this unpriced bid and the specifications enclosed.

Authorized Signatory:	
Name & Designation:	
Seal of the Company	
Date:	

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