



## **REQUEST FOR INFORMATION**

**RFI NO: RFI/HEN/2025/1**

**RFI TITLE: Request for Information for Replacement of FCC Playout Servers.**

**RFI OBJECTIVE: This RFI calls for Request For Information regarding the replacement of FCC Playout Servers.**

RFI documents are obtainable from **20 January 2025** from the following websites:

- Government E-Portal <http://www.etenders.gov.za>
- SABC Website <http://www.sabc.co.za/sabc/tenders>

**Closing Date: 17 February 2025 at 12H00**

**For enquiries: E-mail: [tenderqueries@sabc.co.za](mailto:tenderqueries@sabc.co.za)**



**SOUTH AFRICAN BROADCASTING SABC SOC LIMITED**  
**("The SABC")**

**REQUEST FOR INFORMATION (RFI)**

<b>RFI NUMBER</b>	<b>: RFI/HEN/2025/1</b>
<b>RFI TITLE</b>	<b>: Request for Information for Replacement of FCC Playout servers</b>

**EXPECTED TIME FRAME**

<b>RFI PROCESS</b>	<b>EXPECTED DATES</b>
RFI Advertisement Date	20 January 2025
RFI Available from	Government E-Portal <a href="http://www.etenders.gov.za">http://www.etenders.gov.za</a> SABC Website <a href="http://www.sabc.co.za/sabc/tenders">http://www.sabc.co.za/sabc/tenders</a>
Briefing Session	No briefing session
RFI Closing Date and Time	17 February 2025 at 12H00
Contact details	<a href="mailto:tenderqueries@sabc.co.za">tenderqueries@sabc.co.za</a>

The SABC retains the right to change the timeframe whenever necessary and for whatever reason it deems fit.

Respondents interested in participating must register their interest by providing company name, contact person, telephone, cell number and email address to [RFPSubmissions@sabc.co.za](mailto:RFPSubmissions@sabc.co.za), please indicate RFI number on the subject line. This will ensure that any addenda and clarification to this RFI are communicated to all participants.

**SUBMISSIONS ARE TO BE DONE ELECTRONICALLY.**

**PDF Documents will be available on the SABC Website.**

PLEASE NOTE THAT THIS IS A REQUEST FOR INFORMATION AND NOT A REQUEST FOR PROPOSAL. NO AWARD WILL BE MADE FROM THIS REQUEST.

## REQUEST FOR INFORMATION:

### 1. DEFINITIONS

- 1.1 “**RFI**” - a request for information, which is a written official enquiry document encompassing all the terms and conditions of the information in a prescribed or stipulated form.
- 1.2 “**RFI response**” - a written response in a prescribed form in response to an RFI.
- 1.3 “**Hosting Partners**” - companies who entered into an agreement with SABC LOC in the areas of application management; application hosting, application service provision, and marketplace hosting are incorporated in this category.
- 1.4 “**Respondent**” – any person (natural or juristic) who forwards an acceptable RFI in response to this RFI with the intention of being the main contractor should the RFI be awarded to him.

## 2. CONFIDENTIALITY

All information related to this request for information both during and after completion is to be treated with strict confidence. Should the need however arise to divulge any information gleaned from the service which is either directly or indirectly related to the SABC, written approval to divulge such information will have to be obtained from SABC.

The Respondents must ensure that confidential information is: maintained confidential; not disclosed to or used by any unauthorised person; so as to prevent any disclosure or unauthorised use with at least the standard of care that Respondents maintain to protect their own confidential information; only used for the purpose of considering and responding to this RFI; and not reproduced in any form except as required for the purpose of considering and responding to this RFI. Respondents must ensure that: access to confidential information is only given to those of its partners, officers, employees and advisers who require access for the purpose of considering and responding to this RFI; and those partners, officers, employee and advisers are informed of the confidential information section and keep that information confidential. This RFI remains at all times the property of the SABC. No rights other than as provided in this RFI and in respect of the confidential information are granted or conveyed to bidder/s

NAME OF Respondent: \_\_\_\_\_

PHYSICAL ADDRESS: \_\_\_\_\_

\_\_\_\_\_

Respondent's contact person: Name : \_\_\_\_\_

Telephone : \_\_\_\_\_

Mobile : \_\_\_\_\_

Fax.: \_\_\_\_\_

E-mail address: \_\_\_\_\_

**3. The manner of submission of the RFI**

- 3.1** Respondent shall submit RFI response in accordance with the prescribed manner of submissions as specified below.
- 3.2** Respondent shall submit one (1) electronic copy. Electronic copies may be e-mailed to: [RFPSubmissions@sabc.co.za](mailto:RFPSubmissions@sabc.co.za) and [tenderqueries@sabc.co.za](mailto:tenderqueries@sabc.co.za)
- 3.3** All additions to the information documents i.e. appendices, supporting documentation, photographs, technical specifications and other support documentation covering suggested solutions etc. shall be neatly bound as part of the schedule concerned.
- 3.4** A briefing session will NOT be held; however questions or queries may be sent to this email address [tenderqueries@sabc.co.za](mailto:tenderqueries@sabc.co.za).

## 4. BACKGROUND

The core business of the South African Broadcasting Corporation (SABC) is to deliver a variety of high-quality programmes and services on television, radio and online with a mandate to Inform, Educate, Entertain, and to Support the public at large.

The Final Control Centre (FCC) is responsible for the playout of content that comes from Video Entertainment division, Sport, News, and Sales Department with the aim of playing it on air on different platforms. There is currently an Ingest server, Near-Line Storage Server, and three Transmission (playout) servers which ensure seamless transmission on content.

This infrastructure is reaching its end of life and will soon be unsupported, thus placing FCC in tremendous risk of not fulfilling its mandate. Thus, a need to replace this infrastructure.

## 5. SCOPE AND REQUIREMENTS

The scope of this RFI encompasses the replacement of the following:

- Nearline Storage;
- Main Transmission Server;
- Backup Transmission Server;
- Disaster Recovery Transmission Server.

### 5.1. Nearline Storage

The current Harmonic Mediagrid storage needs to be replaced with the new nearline storage and preview system, which must have the following capabilities and functionalities:

#### **Ingest, Store, and preview of media assets:**

- The nearline storage must allow ingest of versatile file types including XDCAM HD 422 @50Mbps wrapped in MXF OP1A as the current in-house broadcast file format.
- The storage capacity must keep up to 15000 Hours of XDCAM HD 422 @50Mbps of media files wrapped in MXF OP1A.
- It must allow for ingesting of media files over various protocols including but not limited to File Transfer Protocol (FTP).
- The nearline storage must accommodate SD and HD media files and playback.
- It must have no single point of failure: 24/7 365 on-air reliability (Resilience)
- The system must store media assets, including completed programs, advertisements, on-air material, and more. Businesses need these assets to be stored for extended periods.
- The solution must allow for automated purging rules to be defined and actioned as expected.

- Purging rules must be applied separately for each media file against a predefined set of rules by the Automation (Pebble Marina)
- It must have search and browse Interface (User Interface).
  - Allow users to search for content using metadata from media files.
- The nearline storage must allow for the transfer of content to playout systems and existing cloud playout business continuity solutions.
- It must support integration with other media servers enabling media file workflows to and fro:
  - Dalet Galaxy
  - Avid
  - SI Media
  - EVS
  - other FTP servers
- It must support third-party automation (Pebble Marina) for managing files and performing housekeeping tasks.
- The nearline storage server systems must have the ability to preview content over a baseband media playout mechanism.
- The media playout/preview mechanism must support uncompressed IP: SMPTE 2110.
- The nearline storage must allow the ability to perform asset tracking (whether an asset has been sent to playout or failed after preview).

## **5.2. Transmission/Playout**

The current Harmonic Spectrum X transmission servers, as depicted in the image, are comprised of three distinct servers. These servers include the primary transmission servers located at MCR, the backup servers also situated at MCR, and the disaster recovery servers located at RMC. They all need to be replaced with new playout servers with the following capabilities:

- Each Playout must support a minimum of 16 playout channels with the ability to expand individually.
- Each playout server system needs a simple user interface that allows all channels to be visualised in one place.
- A playout system must be easy to navigate and use, for efficiency and to avoid errors.
- The three transmission infrastructure server systems need to be a mirror image of each other to allow seamless playout.



- Each Playout system must support both SD and HD playout of content in different codecs, including XDCAM HD, IMX, MPEG-2 HD/SD, VC-3, DVCPRO, DV, AVC HD/SD, and Apple ProRes.
- Each Playout system must support different video file containers: MXF OP1a (standard and low latency), AS11, DPP, QuickTime, GXF
- Each Playout system must support various audio codecs and containers such as Uncompressed PCM (16 and 24-bit depth), AIFF, AES, WAV, and Compressed DolbyE enc/dec.
- The Playout systems must support uncompressed IP: SMPTE 2110.
- The systems must support VANC, VBI, ARIB VANC insertion and triggering.
- Playout servers must incorporate channel master control for each channel capable of:
  - A/B mixing
  - advanced audio mixing & processing
  - DSK
  - DVE
  - live feed passthrough and branding
  - multilayer branding of graphics, and
  - external key and fill capability.
- Each playout server storage must have a capacity of up to 5000 Hours calculated against XDCAM HD 422 @50Mbps wrapped in MXF OP1A scalable to add more when a need arises.
- All three servers must allow for ingesting of media files over various protocols including but not limited to File Transfer Protocol (FTP).
- The playout systems must support and be integrated with third-party automation control (Pebble Marina) for playing out of media files, branding of live passthrough feeds, and housekeeping tasks related to media files.
- The system must offer a native user interface to manually control and play media out on the output channels/ports in case the automation encounters any issues.
- Each Playout system must allow and support control over ethernet control protocols.
- The systems must support compressed MPEG over IP (h.264/265), SRT, UDP, RTMP, RIST, RTP outputs in addition to the standard uncompressed outputs of playout channels.

### 5.3. General Requirements

The following requirements must be included in the RFI response:

- The Nearline Storage and Transmission Servers must have user identification, authorization and authentication mechanisms (These should be in line with the SABC's IT Security policies).
- The Nearline Storage and Transmission Servers must allow for different notifications/alerts by means of email.
- The solution must allow for remote-control access requirement to remote Playout when a crisis occurs.
- Additional Evertz aggregation switching fabric and additional fibre to connect the new solution to the existing IP ST2110 network in Henley and RMC K2-T6.
- Media network infrastructure supporting minimum of 10Gb connections to enable fast transfer speeds of media files.
- Network fabric for the compressed video over IP streaming or sharing.

### 5.4. Detailed Non-Functional Requirements

#### 5.4.1 Accessibility

The infrastructure must offer:

- Nearline storage and Transmission servers must ensure rapid retrieval, avoiding disruptions to broadcast operations. (Accessibility and redundancy)
- Nearline storage and transmission servers must provide intermediate data accessibility. (Accessibility)
- It must be available and performant for users who need to access the data daily.
- The infrastructure must allow for a minimum 50 concurrent media transfers.

#### 5.4.2 Compatibility

The infrastructure should be compatible with the current landscape of systems. (see Integration non-functional requirements below)

#### 5.4.3 Integration

Integration with the existing SABC media production storage server systems.

- i. The nearline storage server system must be accessible to 3rd-party media systems that require ingesting, uploading, or transferring media files for transmission. The 3rd party media servers are as follows:
  - the SI Media (News),

- Dalet Galaxy FIVE & SIX
  - the EVS Production Server (Sports/OB),
  - the Avid server
- ii. The Pebble Marina system (Broadcast Automation System) must be integrated to control the playout/transmission servers for purposes of:
- automated schedule playout
  - media preview functions (Junction Preview)
  - media management and housekeeping activities
- iii. The Pebble Marina system (Broadcast Automation System) must be integrated to control the nearline servers for purposes of:
- Media preview (Eyeball QC)
  - Media management and housekeeping activities

#### **5.4.4 Availability**

The Infrastructure should offer 100% maximum uptime. Backup times should be arranged with the SABC's internal teams. The Disaster Recovery site should be arranged to ensure minimal-to-zero impact and the quickest possible recovery in the event of unforeseen incident.

- Resilience guaranteed:
  - No Single point of failure;
  - Loss-less Content "no loss" guaranteed;
- High-availability - Continuous uninterrupted accessibility; even during migrations or system upgrades, never any access downtime;
- System backup and recovery.

#### **5.4.5 Usability**

The Infrastructure should offer ease of use to its users. The Nearline Storage and Transmission Servers should be user-friendly and offer the following, but not limited to just these:

- Logical arrangement of content;
- Information/content must be structured in such a way that the user is able to find information with minimal clicks;

#### **5.4.6 Security**

The Infrastructure should have sufficient security levels to prevent any unauthorised entry or intrusion. All the basic security components should be addressed. (Confidentiality, Integrity and Availability).

- User rights (Privileged user access/ restrictions);
- Secure storage and playback of the media files.
- Provide data protection (to allow certain groups/systems with the correct permissions to only edit and update the content or data)
  - i.e.: Not all users can preview, delete, and update – rights & privileges must be defined per user role or contributing media server systems.

The Nearline Storage and Transmission Servers must comply with the SABC security policies.

#### **5.4.7 Scalability**

The infrastructure must be fully scalable to meet the needs of the business as the future dictates.

#### **5.4.8 Logging and Auditing**

The infrastructure must also have an audit log content entries for tracking and audit trails of content. This should meet SABC IT audit requirements in order to keep track of who is adding and/or deleting what etc.

Audit trials/reporting

- Have an administration reports of audit trials.
- Provide the ability to compile reports on statistical information of activities.
- Audit trail must be able to track the following (As per SAB IT audit requirements):
  - Username/3rd-party system's IP address
  - date/time stamp
  - Media ID
  - Type of action (create, update, delete)
  - Old and New value where applicable.

#### **5.4.9 Error & Exception Handling**

The infrastructure must have exception handling and be built with customised messages/Alerts when there is any issues and challenges.

#### **5.4.10 Performance**

The infrastructure must be built in such a way that it allows fast response times; the total throughput time at full load (Full concurrent system use) must be less than the average and must also allow for concurrent use with no delays, bottlenecks and impact on the overall page responses.

Performance monitoring must be done on the Nearline Storage and Transmission Servers with alerts/notifications.

#### **5.4.11 Analysis and Reporting Requirements**

The Nearline Storage and Transmission Servers statistics and analytics need be logged for reporting purposes.

#### **5.4.12 Data Migration**

There must be seamless operational and technical workflow migrations from the current infrastructure to the chosen solution avoiding any on-air interruptions. Plans (migration plan) to meticulously ensure that there is no impact to live broadcasting must be made.

#### **5.4.13 Licensing Considerations**

The following considerations should be taken into account:

- Pebble beach licences for the new workflow;
- All licenses whether software or operating systems will be perpetual to avoid any on-air disablements due to subscriptions and continuous annual licensing.

#### **5.4.14 Computing and Network Infrastructure**

The infrastructure is highly dependent on proper network infrastructure to ensure that the performance of the platforms is way above satisfactory.

#### **5.4.15 Training**

Training is important in the implementation of the FCC Servers Replacement. The following should be in place. Training for the Technical Support team is required to enable the SABC technical team to perform:

- 1<sup>st</sup> line support;
- 2<sup>nd</sup> line support with the vendor or service provider selected.
- Documentation of the support and training materials must be given to the SABC

#### **5.4.16 Maintenance and Support**

Maintenance and Support - Service Level Agreement (SLA) must make provision for (but not limited to):

- Spares Kit provided for maintenance and repairs.
- Warrantee period with the necessary support for the first year embedded within the project delivery, the SLA contract must start after the warrantee period has lapsed.

- the SLA that includes annual operational advice and technical support, software upgrades, hardware spare replacements, and hardware upgrade path where applicable.
- enable the SABC access to faults tracking ticketing system with OEM to track and monitor outstanding issues and faults.
- 24/7 operational and technical support directly with the Original Equipment Manufacturer (OEM) via telephone or internet applications.
- Future upgrades of hardware and software with 24/7 operation and technical accessibility, i.e. limited to no system downtime.
- Recommended procedures or test platforms with new software or Windows patch roll-outs and operating system upgrades.
- System Software links to the “Knowledge Base” and “User Groups”; to assist the knowledge of the operational and technical staff.
- The support and maintenance contract must include annual training for the technical team throughout its duration. The training should expose the team to tools, skills, and effective knowledge to provide 1st and 2nd line support for the proposed system.

#### **5.4.17 Budgetary Costing**

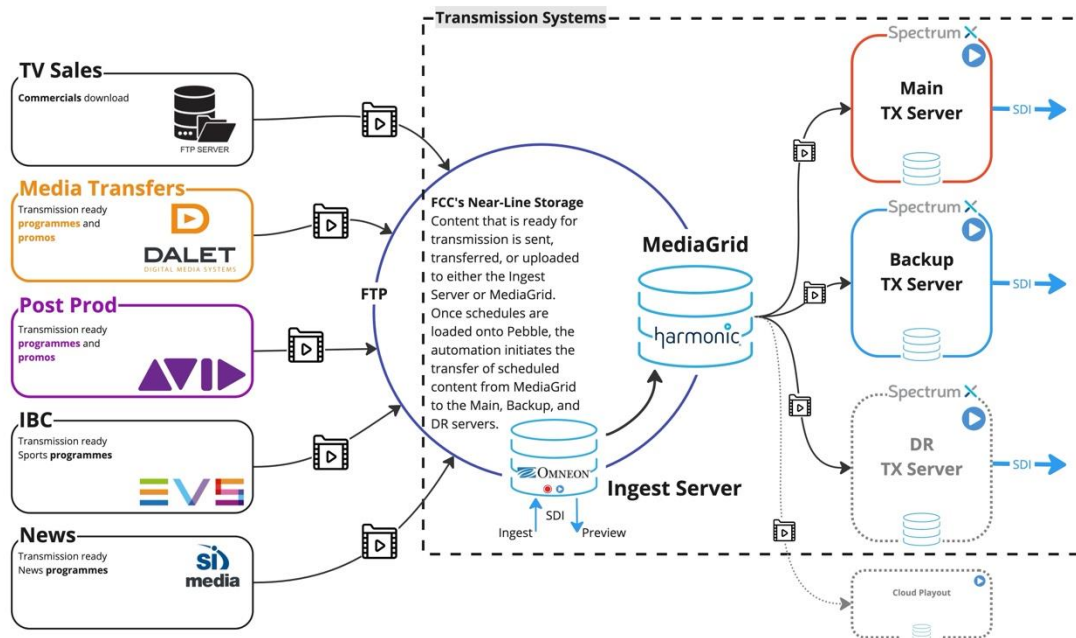
This RFI intends to acquire the cost implications for the outlined requirements in scope. The cost for the holistic replacement of the servers is requested to cover but not limited to:

- The entire proposed solution cost
- Network infrastructure required
- Installation materials
- Installation and configuration cost
- Training cost for 10 Engineers
- SLA cost for 10 years or the maximum number of years of the proposed solution life cycle
- The cost for re-integration of the Pebble Marina automation with the solution
- The possible cost involved in integrating other existing media server systems to enable tight integration for media sharing:
  - the SI Media (News),
  - Dalet Galaxy FIVE & SIX
  - the EVS Production Server (Sports/OB),
  - the Avid server

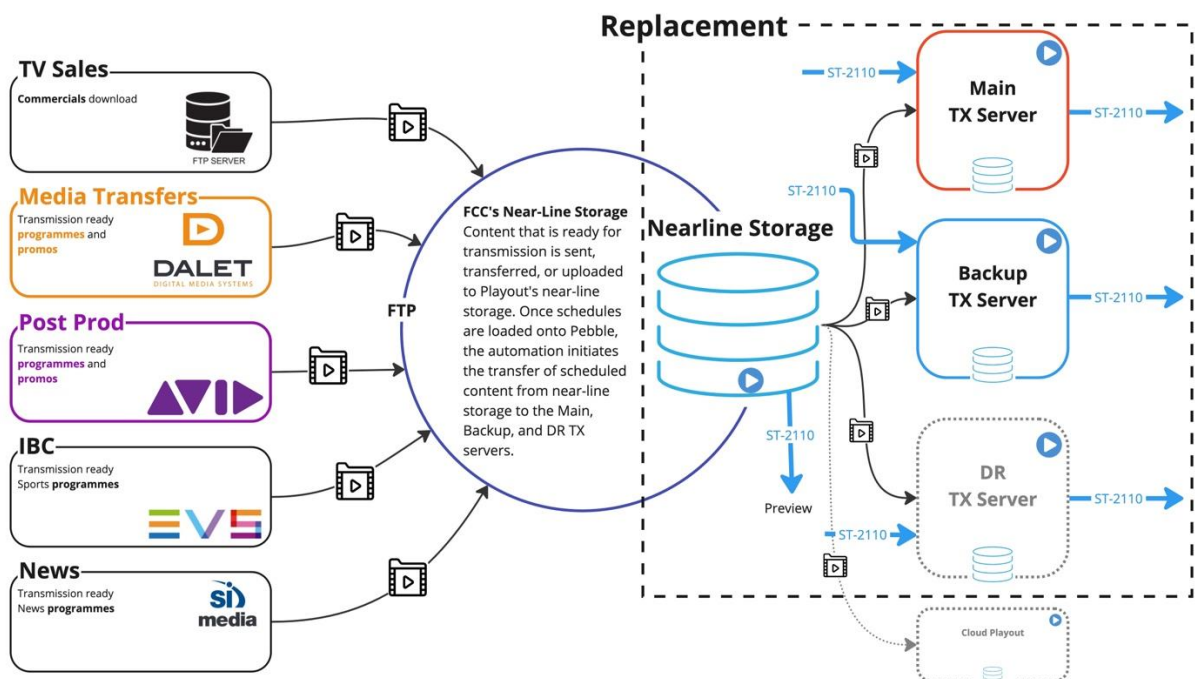
- Visiting of Implemented site and OEM plant to better understand the product and how other broadcasters are using it, their lessons, and advice.
- Costing should include implementation and/or configuration costs.

## 6. ATTACHMENTS:

### 6.1. As is overview



### 6.2. Desired solution overview



## **7. GENERAL INFORMATION**

### **Contact Persons for Queries**

Enquiries in respect of this RFI should be addressed to:

SCM Division

E-mail: [tenderqueries@sabc.co.za](mailto:tenderqueries@sabc.co.za)

All queries to be e-mailed.

## **8. RFI SUBMISSION INFORMATION**

### **SUBMISSION DETAILS:**

RFI responses should be submitted electronically to [RFPSubmissions@sabc.co.za](mailto:RFPSubmissions@sabc.co.za) and [tenderqueries@sabc.co.za](mailto:tenderqueries@sabc.co.za)

**END OF THE REQUEST FOR INFORMATION DOCUMENT**