



INVITATION TO TENDER

**BROADCASTING COMPLIANCE, RECORDING AND
MONITORING PLATFORM**

The Gambia Public Utilities Regulatory Authority (PURA) wishes to invite interested bidder to submit bid for the procurement of broadcasting compliance, recording and monitoring platform

1. The Gambia Public Utilities Regulatory Authority (PURA) is funding the procurement of BROADCASTING COMPLIANCE, RECORDING AND MONITORING PLATFORM and intends to sign a contract for the services of a consultant to conduct Human Resource Audit.
2. The procurement is expected to be delivered, install and testing for acceptance within three months..
3. Accordingly, The Gambia Public Utilities Regulatory Authority (PURA) invites sealed Bids from eligible bidders for the BROADCASTING COMPLIANCE, RECORDING AND MONITORING PLATFORM .
4. The deadline for submission of inquiries and requests for clarifications is on Monday 10th July 2023.
5. Interested eligible bidders may obtain further information from and inspect the Bid documents at the office of The Gambia Public Utilities Regulatory Authority (PURA), located on 94 Kairaba Avenue. Tel: +2204399601, and Email: procurement@pura.gm.
6. A complete set of bid documents in English language may be purchased by interested Bidders within 30 days upon payment of a non-refundable fee of **D5,000 (Five Thousand Dalasi)**.
7. Bids must be delivered to The Gambia Public Utilities Regulatory Authority (PURA) tender box, at 94 Kairaba Avenue, P.O. Box 4230 Bakau, or through email to procurement@pura.gm on or before **Monday 17th July 2023, by 12:00 pm GMT**, and shall be accompanied by a bid security of 2% of the bid price.
8. **The Bid shall be addressed to:**
The Director General
Public Utilities Regulatory Authority
94 Kairaba Avenue
P.O. Box, 4230 Bakau,
The Gambia
9. Bids will be opened in the presence of bidders or their representatives who choose to attend at The Gambia Public Utilities Regulatory Authority (PURA)'s conference room on **Monday 17th July 2023 at 12:15pm GMT**.



**TECHNICAL SPECIFICATION OF THE BROADCASTING, COMPLIANCE, RECORDING
AND MONITORING PLATFORM**

COMBINED TECHNICAL SPECIFICATIONS AND BID COMPLIANCE

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Item No.	Technical Specification of Item Required
GENERAL	
1	Broadcast content monitoring and logging system which is able to record and archive the transmission of any kind of Radio and TV stations broadcast, to allow content control and monitoring.
2	The system should be able to record multiple Radio and TV channels from different sources/feeds: FM / AM / W, analogue / digital SDI / DVBS / DVBT / ASI / TS and IP input in UDP, RTP, RTSP, RTMP, HTTP.
3	The system should be fully scalable for future expansion, flexible, reliable, provide reports, statistics and provide users the ability to do quick searches based on the date / time and retrieve or deliver content.
4	The system should be supplied on turnkey basis: rack, accessories, wiring, cabling, KVM Switch, LAN firewall, VPN, etc. All the accessories that might be required to make the system fully operational according to our specifications. All required items for a fully operational BMS should be provided by the tenderer.
5	System must include UPS (dual conversion) for all the equipment to filter power peaks and spikes.
6	The Installation, Commissioning, Training and Warranty Must be included in the bid document and Clearly Spelt Out .
FEATURES AND FUNCTIONALITIES	
ANTENNA SYSTEM	
7	The antenna system and its signal distribution should be configured according to the type and quantity of the broadcast channels to be recorded: FM Radio, Terrestrial TV (analogue and digital).
8	All the required antennas, poles, wirings, signal distribution with necessary accessories should be provided by the tenderer, which can be sub contracted locally if so desired.
RECORDINGS	
9	The system should continuously record 24/7 a minimum of 50 FM Radio Stations or more. The tuner(s) must be provided by the tenderer. The specific channels to be recorded should be easily configurable by the users of the system.
10	The system should continuously record 24/7 a minimum of 20 TV Stations or more, which shall be a combination of analogue and digital ready terrestrial stations. The tuners/integrated receiver decoders must be provided by the tenderer. The specific channels to be recorded should be easily configurable by the users of the system.
11	Tenderers must include the proper number of recorders, for continuous archiving of off-air feeds for a period of a minimum of 90 to 180 days maximum and also store the data for each channel.
12	Have a minimum centralized storage with capacity able to maintain a minimum of 90 to 180 days maximum of recordings for each channel.



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Item No.	Technical Specification of Item Required
13	Each recorder must save the file on local disks and the files must be copied to a central storage. Users and operators must be able to access the saved content from the central storage in order not to affect the recordings.
14	Recorders should be SNMP v.2 compliant
15	System should send alert via SNMP, SMS and Email in case of fault during recordings or other eventualities.
16	<p>In-depth audio/video quality monitoring and conformance checks. Support for ETSI TR 101 290-compliance monitoring (Measurement guidelines for DVB systems), as outlined below:</p> <ul style="list-style-type: none"> • Priority 1 Errors - Basic set of parameters which are considered necessary to ensure that the transport stream (TS) can be decoded • Priority 2 Errors - These are additional parameters which are recommended for continuous monitoring • Priority 3 errors - These indicators are optional additional parameters which could be of interest for certain applications • Be able to detect automatically any irregularity in the Video or Audio feed, such as Frozen Image, Audio too Low and other common Quality of Experience issues • Have a system monitoring capability that allows display of status of connected equipment on monitors and web page and notify alarms such as the listed typical alerts: <ul style="list-style-type: none"> • - Absence of video • - Absence of audio • - Video freeze • - Instant data rate • - Average data rate • - Date/time accuracy • - Lost frame • - Network Ping • - File copy • - Space available on the storage • - Alert notification via SMS, email in case of faults. • Provide support for TS capture/recording for DVB-T/T2 Provide detailed statistics on TS quality, Program Identifications (PIDs), services and tables in real time. Support deep decoding of tables and descriptors with customisable templates for decoding of custom tables and descriptors • Time Synchroniser (client/server for LAN networks) with Sat GPS receiver
17	Compliance logger platform which complies with media regulators requirements, Loudness, etc,.
18	Has recording parameters that can be set for each channel: using an Audio file format: MP2, MP3, WAV, AAC, etc. & Video file format: MPEG-2, H.263, MP4/H.264, WMV, etc.
19	Should have a quality compression (data rate) and resolution (QCIF, CIF, SD, HD)
20	Accurate Real-time statistics on capture process: file format, data rate, dropped frames, etc.
21	Customizable segmentation of recording duration (typically 60 min or file size).
22	Character Generator (CG) overlay with anti-aliased text for name of channel, date and time.



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Item No.	Technical Specification of Item Required
23	Volume adjustment with compressor and AGC.
CONTENT PLAYBACK	
24	Quick access and retrieval of recorded content via standard web browser and windows App.
25	Web-based user interface for operation must allow video/audio playback, audio and video export and real-time monitoring of the recording process for each channel.
26	The system should support at least 3 simultaneous users in the control room and 3 other Supervisors logging via their individual workstations using IP addresses.
27	Workstations (Robust PC, LCD 27" or larger, keyboard, mouse, headphones) for users/operators should be provided by Tenderer. Stereo headphones and amplifier active speakers for additional sound output monitoring should also be provided.
28	Various Access Rights must be assigned to each user with name and password. System should be LDAP compliant.
29	Content browsing, searching and playback for user via WEB and LAN using Internet browsers from any platform and also Windows APP.
30	Mark point positioning is frame-accurate using handy scroll & drag bars.
31	Tool to extract and export video segments of desired durations with accurate mark-in and mark-out, from seconds up to several days in a single file.
32	Possibility to extract audio only from recording.
33	Visualization of the audio waveform with zoom in/out.
34	Playback speed should be variable from 0.5x to 16x.
35	Go To Date/Time function allowing direct playback to specific recorded events.
36	Software interface should support the English Language.
37	The Windows App player should allow the simultaneous and synchronous playback of the recordings of multiple TV channels for video comparison.
38	Graphic overlay during export (E.g. logo) for watermarking purpose
SYSTEM SUPERVISOR WITH CENTRALIZED ALERT AND NOTIFICATION	
39	The provided solution should have a centralized Supervisor which automatically controls the overall system status and notifies any fault or alarm. The Supervisor should provide a multi-view style dashboard displaying the status of each recorder with preview (continuous video or image refreshed every N second, avoiding network overload) and alerts to allow fast intervention.
40	Centralized Dashboard should be available via web browser and on a local TV monitor.
41	System should provide connection for a large HDMI TV monitor to display the dashboard in the control room. At least 50" TV monitor or larger must be provided by the tenderer.
	Optional Features for Future Consideration of the Purchase (Please include cost, as can be negotiated if additional funds are available by the time the tenders are received)
42	Support for DAB Services
43	Support for Satellite TV Services
44	Audio Fingerprinting for Content Identification



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Item No.	Technical Specification of Item Required
	Requirements of the Tenderer
45	(a) Technical Suitability – conformity of proposed system to technical specifications. This may be evidenced by the tenderer’s write-up, machine brochures, reference letters from customers where the system or a similar system is installed and worked successfully, detailed CVs of tenderer’s and key staff to be involved etc.,
46	(b) Past Performance – evidence of the tenderer’s capacity to fulfil contractual obligations in terms of timeliness, compliance with agreed quality standards of the items delivered etc,. This shall be evidenced by at least two authentic reference letters addressed to the Purchaser from previous reputable customers of the bidder. Significant preference will be given to reference(s) from regulator(s) in Africa and with the responsibility for broadcasting regulation.