



## TENDER DATA

Project title:	APPOINTMENT OF SERVICE PROVIDER FOR THE PROVISION OF AUDIO CODECS TO SENTECH SOC LTD FOR A PERIOD OF THREE (3) YEARS.
Bid no:	SENT-005-2022-23

### 1. BACKGROUND

Sentech is a state-owned company and is the largest broadcasting signal distributor in South Africa. Sentech is a licensed Electronic Communications Network Service provider in South Africa. It currently operates many telecommunication networks for Satellite, Television, Radio, Internet and more. As such, Sentech is a global enabler of broadcasting and digital content delivery.

The purpose of this Tender Enquiry is to complete tender adjudication, to select preferential Audio Codec Supplier(s) and to prepare a 3-year Supply Contract and renewable thereafter if required.

Sentech will purchase Audio Codecs as and when requirements are confirmed at a contractually agreed price and delivery time.

The installation and commissioning of the Audio Codecs covered by this tender enquiry will be carried out by Sentech's engineering staff and the tender price is to be based solely on the supply of the equipment and relevant supplementary services as specified.

### 2. SUBMISSION OF BIDS and CLOSING

This Bid closes at the stipulated date and time as stated in SBD 1 Notice and Invitation to Bid. Bids must be submitted by hand to the Bid Administrator at SENTECH, Octave Road, Radiokop Ext 3, Honeydew, Johannesburg.

Bidders that choose to submit their bid documents before the closing date and time may do so during working hours only (08:30-15:30).

It is the Bidder's responsibility to ensure that their bid submissions reach the Bid Administrator before the bid closing time as no late submissions will be accepted.

Telegraphic, telephonic, telex, facsimile, e-mail and late Bids will not be accepted. Proposals may be opened in public. Bidders will be advised of the outcome by letter or e-mail.

This is a two-envelope system for Bid Evaluation. Bidders must submit their proposal and all supporting documentation in a sealed envelope, clearly marked as follows:

**Envelope One** "Original Technical Proposal" together with a soft copy in PDF format of an electronic medium e.g. USB etc. The envelope must contain all information and documents relating to the Bid. (Refer to list of returnable documents).

**No Financial Information must be included in Envelope 1.**

**Envelope Two** "Original Financial Proposal" (Contract Data and Pricing schedule/schedule of rates as applicable) together with a soft copy in PDF format of an electronic medium e.g. USB etc.

Bidders are required to place the sealed **Envelope 1** together **with** the sealed **Envelope 2** into one sealed envelope or container. The sealed envelope or container must be marked with the following information:

- **For Attention**
- **HEAD OF SUPPLY CHAIN MANAGEMENT**



- **BID REFERENCE NO:** ##
- **TECHNICAL AND FINANCIAL PROPOSALS**
- **INSERT CLOSING DATE AND TIME**
- **BIDDER'S NAME AND ADDRESS**

The financial proposal will only be opened and evaluated should the technical proposal be found to be responsive, being that the technical proposal has met the minimum technical evaluation criteria that are set out in the Bid Documents.

The Bidders shall insert a table of contents and bind (ring bind or similar method) the proposal documents and verify the page numbers, as Sentech will not accept any liability with regard to any disputes arising from pages that are missing or duplicated in the aforementioned documents.

Bidders are required to complete and sign all the returnable documentation (refer to list of returnable documents) and initial all pages, drawings and brochures which are included in the reply as Sentech will not accept any liability with regard to any disputes arising from pages that are missing or duplicated in the aforementioned documents.

Late submissions will not be considered.

### **3. SIGN AND INITIAL**

Bidders are required to complete and sign the Bid Forms where required and initial the bottom of all pages, drawings and brochures which are included in the submission as Sentech will not accept any liability with regard to any disputes arising from pages that are missing or duplicated in the aforementioned documents.

### **4. COMPLETION OF BID DOCUMENTS**

Bidders must ensure that they complete all sections of the Bid Documents as per the requirements in the Bid.

Bidders must use only the Bid documents provided by Sentech. Photocopying of the Bid document is permitted however Bidders must not re-type or re-draft the Bid documents.

### **5. COSTS OF PREPARING THE BID SUBMISSION**

Bidders shall bare all costs associated with the preparation and submission of the proposals. Sentech shall under no circumstances be held responsible or liable for any costs incurred during the bidding process.

### **6. EVALUATION CRITERIA**

The evaluation criteria are stipulated in 14 below. It is the Bidder's responsibility to ensure that it has responded to the evaluation criteria. Failure to meet the evaluation criteria will result in the Bidder not being evaluated further. Bidders must ensure that they have included all supporting documentation required to support their response to the Bid.

### **7. BRIEFING SESSION**

Should there be a compulsory briefing session for this Bid, Bidders must ensure that they attend the briefing session and sign the attendance register, as non-attendance or failure to sign the attendance register will automatically disqualify a Bidder from submitting a proposal for this Bid.

All questions raised by Bidders post the briefing session will be consolidated and shared with all Bidders at least seven (7) calendar days prior to closing.

## 8. LOCAL PRODUCTION AND CONTENT

In the case of designated sectors, where in the award of Bids, local production and content is of critical importance, such Bids will contain a specific bidding condition that only locally produced goods, services or works or locally manufactured goods, with a stipulated minimum threshold for local production and content will be considered.

Does this requirement fall under any designated sector as prescribed by the DTI?	<b>Yes</b>	<b>No</b>
If yes, specify the sector		
Specify minimum threshold applicable		

**\*Bidders must fill in the SBD6.2 for Local Content and Production**

## 9. CLARIFICATION

Enquiries related to Bid documents may be addressed to the Bid Administrator and Supply Chain Official as stated in SBD 1 Notice and Invitation to Bid.

## 10. BID EVALUATION METHOD

This Bid will be evaluated as described in the table below.

<p><b>Two envelope system will be followed for Technical and Price offer</b></p>	<p><b>Stage 1 – Administrative Responsiveness Evaluation</b>          All the Technical Proposals will be evaluated against the <b>administrative responsiveness requirements</b> as set out in the list of returnable documents.</p> <p><b>Stage 2 –Technical Evaluation</b>          All proposals that qualify based on the administrative responsiveness requirements will be evaluated against the <b>Mandatory Evaluation Criteria. Tenders must COMPLY TO ALL the Mandatory Evaluation Criteria to qualify for further evaluation.</b></p> <p><b><u>Functional evaluation Criteria</u></b>          Only the Bidders that complied in full with ALL the Mandatory Criteria will be scored against the functional evaluation criteria set out in section 18.2 below. Bidder that scores <b><u>49 points and passing every individual section</u></b> and more out of the possible <b><u>70 points</u></b> will be evaluated further. Bidders who fail to score a <b><u>minimum of 49 or meeting every individual section's minimum score</u></b> and fail to present proof and evidence to their response to Functional criteria will not be evaluated further.</p> <p><b>Stage 3 – Price</b>          The bidders who pass the minimum qualifying functional score will be subjected to price evaluation. The bidder who provides the lowest price having met all the requirements will be recommended for appointment.</p>
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## 11. ADMINISTRATIVE RESPONSIVENESS REQUIREMENTS

To be administratively responsive, Bidders must ensure that they meet all the below mentioned criteria. Bidders that do not meet all the below mentioned criteria may not qualify to be awarded the Bid. Sentech reserves its rights in respect of the below criteria.

- Complete and return all documentation stipulated in the LIST OF RETURNABLE DOCUMENTS.



- All correspondence must be in English.
- Bidders must fill in all sections of this document (where applicable).
- **BLACK INK** must be used when completing the Bid documents.
- All corrections must be initialed. The use of corrective fluid is strictly prohibited.
- Bidders must use only the Bid documents provided by Sentech. Photocopying of the Bid document is permitted however Bidders must not retype or redraft the Bid documents.
- Bidders are required to fill in and sign the Bid Forms and initial all pages, drawings and brochures which are included in the reply as Sentech will not accept any liability with regard to any disputes arising from pages that are missing or duplicated in the aforementioned documents.
- Bidders must complete an attendance register at each compulsory site meeting attended.
- Appointment of a Bidder will be subject to signing, declaration and submission of SBD 1,2, 3.1, 3.2, 3.3, 4, 5, 6.2, 8, and 9 depending on applicability.
- Complete and sign the Contract Data.
- Should this be a 2 envelope or 2 stage system, Bidders **MUST** separate the technical proposal from their financial proposal. The technical and financial proposals must be placed in two separate sealed envelopes.
- Bidders are required to ensure that they meet all the Administrative Responsiveness Criteria.

#### 12. AUTOMATIC DISQUALIFICATION

Sentech reserves the right to automatically disqualify Bidders from being awarded this Bid. The following will lead to automatic disqualification:

- Failure to submit a financial proposal, if required.
- The Bidder is or has been involved in any act of corruption or fraud or bribery or collusion or attempt to influence any employee of Sentech to award this Bid or any other Bid to it.

#### 13. TECHNICAL RESPONSIVENESS COMPLIANCE

The Technical Evaluation will encompass evaluation of:

- Mandatory Criteria
- Technical Criteria

#### 14. TECHNICAL EVALUATION CRITERIA

##### 14.1 Mandatory Eligibility Criteria

The following criteria are mandatory to **ALL BIDDERS**:

Tender Specifications	Single-chan IP Compliance (Yes/No)	Multi -chan E1/IP Compliance (Yes/No)	Reasoning/ References
All Equipment provided in the tender will be ICASA Type approved on order			
All equipment provided in the tender will be interoperable with Worldcast APT codec systems.			

**NOTE: Bidders that do not comply with all the above criteria will not be evaluated further.**



#### 14.2 Functional Criteria

The Technical Evaluation will encompass evaluation of:

- Technical Criteria
- Risk Assessment

The tender is for the selection of Two (2) types of audio codec's to be utilized for "Studio Transmitter Linking" (STL's) over IP/Ethernet transmission media. Inputs and pricing are required for the listed types accordingly:

- IP Single channel stereo codec's.
- E1/IP Multichannel stereo codec's (populated for 4 x unidirectional stereo channels).

To be compliant Tenderers must comply with the minimum qualifying criteria as stated in the table below:

Technical Responsiveness Criteria Point System					
		Single Channel IP		Multi-Channel IP	
Section	Criteria	100%	Min. Req.	100%	Min. Req.
1	Hardware and Software	6	4	6	4
2	Audio Performance	20	16	20	16
3	Transmission IP/Ethernet	9	9	9	9
4	Auxiliary RS-232	4	4	4	4
5	Alarm	1	1	1	1
6	Management	9	4	9	4
7	Fault Management	3	2	3	2
8	Performance Management	4	1	4	1
9	General Support	5	3	5	3
10	Software Maintenance	3	2	3	2
11	Repairs and Spares	6	3	6	3
<b>Total Req. (100%)</b>		<b>70</b>		<b>70</b>	
<b>Minimum Qualifying Req.</b>			<b>49</b>		<b>49</b>

#### 1.1. Technical

##### Hardware and Power Supply Requirements

Tender Specifications		Single-chan IP Compliance (Yes/No)	Multi -chan IP Compliance (Yes/No)	Reasoning/References
1.1	Standard 19" rack mounts equipment in 1U (44.5mm) Sizes or multiples thereof are required.			
1.2	In general, power supplies should conform to South African relevant Standards. Single phase 230VAC (+ 10% to -15%) 50 Hz (± 2%).			
1.3	State whether a Mains Inlet Filter will be supplied (Filters complying With EN60 320/BS4491 are preferred).			
1.4.	State what precautions have been taken to eliminate hard- software Hang-ups during mains interruptions?			

Tender Specifications		Single-chan IP Compliance (Yes/No)	Multi -chan IP Compliance (Yes/No)	Reasoning/References
1.5	Equipment shall operate without degradation of reliability or specification at indoor temperature of 0 to +45°C at relative humidity of up to 95%.			
1.6	The Tender shall attach soft copies (preferably in Acrobat file Format or CD) of "User Manual's".			

### Audio Performance

Tender Specifications		Single-chan IP Compliance (Yes/No)	Multi -chan IP Compliance (Yes/No)	Reasoning/References
2.1	State Standard APT- or enhanced APTx compliance.			
2.2	State MPEG1 L2 compliance.			
2.3	State Linear PCM 16/24 bit compliance over IP			
2.4	State MP L2 AAC LC compliance.			
2.5	State MPX over IP compliance			
2.6	State Dolby-E pass through compliance over IP			
2.7	Specify the nominal input and output levels in dBu and whether it's configurable and to what resolution.			
2.8	Specify maximum input and output levels (i.e. headroom) in dBu and whether it's configurable.			
2.9	Analogue input impedance shall be = > 10K - or 600 Ohms selectable			
2.10	Analogue output impedance shall be = < 100 – or 600 Ohms selectable.			
2.11	State AES/EBU compliance with AES3-1992 professional standard with balanced XLR input/output's.			
2.12	State whether 32 -, 44.1 -, and 48 kHz sampling rates are supported for analogue and AES serial digital operation.			
2.13	Specify whether silence sense duration and audio levels are configurable.			
2.14	State whether automatic backup are supported.			
2.15	State whether simultaneous analogue and AES/EBU outputs are supported.			

Tender Specifications		Single-chan IP Compliance (Yes/No)	Multi -chan IP Compliance (Yes/No)	Reasoning/References
2.16	State whether full duplex operation is supported for analogue and AES/EBU.			
2.17	State whether automatic sample rate conversion is supported on AES/EBU inputs?			
2.18	Specify whether the sample rate on the AES/EBU digital output is preset able to 48 kHz.			
2.19	State availability of an external AES/EBU reference input facility.			
2.20	Audio connectors for analogue and AES/EBU shall be balanced XLR.			

#### Transmission Media Interfaces IP/Ethernet

Tender Specifications		Single-chan IP Compliance (Yes/No)	Multi -chan IP Compliance (Yes/No))	Reasoning/References
3.1	The equipment shall support connection to 10/100B-T Ethernet in accordance with IEEE 802.3. Both uni-and bi- directional audio traffic shall be possible via the Ethernet interface. IP audio algorithms should be able to be streamed over this interface.			
3.2	State whether transporting can be done via contended bit rate networks i.e., 3G and variable Ethernet links. (Specify minimum required rates)			
3.3	State support for RTP/UDP/IP audio streaming.			
3.4	State support for MPEG TS encapsulation of IP streams?			
3.5	Are QoS supported? Please describe the applicable standards to support QoS.			
3.6	State whether VLAN tagging IEEE802.1q are supported?			
3.7	State whether Program Associated data can be transported via IP			
3.8	State whether the jitter buffer are configurable and the maximum duration (in ms) thereof.			
3.9	State whether both Unicast and Multicast modes are supported.			



## Auxiliary Interfaces

### RS-232 Interface

Tender Specifications		Single-chan IP Compliance (Yes/No)	Multi -chan IP Compliance (Yes/No)	Reasoning/References
4.1	State compliance with EIA RS232C specification.			
4.2	State compliance with 1.2-, 2.4-, 4, 8-, and 9.6Kbps data rates.			
4.3	State whether 8 data, 1 start, 1 stop and no parity operation are supported.			
4.4	State support for uni-directional operation with no flow control.			

## Alarm Interfaces

Tender Specifications		Single-chan IP Compliance (Yes/No)	Multi -chan IP Compliance (Yes/No)	Reasoning/References
5.1	Alarms for the following events shall preferably be included: Program loss, transmission loss, and power failure.			

## Management

### General Management Requirements

Tender Specifications		Single-chan IP Compliance (Yes/No)	Multi -chan IP Compliance (Yes/No)	Reasoning/References
6.1	Audio Codecs shall include front panel control facilities including: display, keyboard, level meters, and headphone output socket.			
6.2	Audio Codecs shall support SNMP. The codec's shall integrate to Sentech' central in house NMS (running SNMP).			
6.3	Audio Codecs shall be Manageable by the centralized NMS on IP from any location.			
6.4	State whether Web Server Management are supported via standard web browsers.			
6.5	State the ability to control Audio Codecs remotely using GUI/NMS. The ability to receive SNMP GET commands.			
6.6	State whether in-band management via the Ethernet audio IP port are supported			
6.7	State availability of a dedicated(2 <sup>nd</sup> ) Ethernet port for out of band management			



Tender Specifications		Single-chan IP Compliance (Yes/No)	Multi -chan IP Compliance (Yes/No)	Reasoning/References
6.8	Tenderer will supply MIB files for monitoring purposes			
6.9	State whether IEEE 802.3 (10/100B-T Ethernet) are supported.			

### Fault Management

Tender Specifications		Single-chan IP Compliance (Yes/No)	Multi -chan IP Compliance (Yes/No)	Reasoning/References
7.1	State the ability to perform local and remote loop backs to aid in fault diagnosis			
7.2	Audio Codecs shall generate SNMP traps and Alarm conditions indicating the severity of each trap/alarm.			
7.3	Please indicate trap/alarm severity classifications. Are they configurable?			

### Performance Management

Tender Specifications		Single-chan IP Compliance (Yes/No)	Multi -chan IP Compliance (Yes/No)	Reasoning/References
8.1	Audio Codecs shall comprise Performance monitoring capabilities to monitor and report quality impairments (packet loss, jitter, and latency).			
8.2	Audio Codecs shall provide system resource performance reports.			
8.3	Can system resources' health thresholds be configured on the systems?			
8.4	State whether automatic Health reports (via email or SMS) are supported			

### General Support

Tender Specifications		Single-chan IP Compliance (Yes/No)	Multi -chan IP Compliance (Yes/No)	Reasoning/References
9.1	The warranty period shall be a minimum of twelve (12) months.			

Tender Specifications		Single-chan IP Compliance (Yes/No)	Multi -chan IP Compliance (Yes/No)	Reasoning/References
9.2	The Tenderer shall provide a 5-year Roadmap indicating all developments and any product range or component discontinuations of the proposed solution.			
9.3	State MTBF of the Audio Codecs.			
9.4	In cases where Tenderer is not the OEM. The Original Equipment Manufacturer (OEM) support structure must be provided in all cases.			
9.5	The Tenderer shall supply details of their national support capability in South Africa, alone and/or with partners, clearly indicating the division of labour. In support, the number of available personnel, skills sets per province and examples of successful previous contracts shall be provided.			

#### Software Maintenance

Tender Specifications		Single-chan IP Compliance (Yes/No)	Multi -chan IP Compliance (Yes/No))	Reasoning/References
10.1	The successful Tenderer shall keep Sentech fully informed about pending maintenance releases.			
10.2	The Tenderer MUST be capable of producing special patch releases for Sentech to fix any software abnormality i.e. bugs.			
10.3	For any Tenderer application software change, such as a new software release or patches, the Tenderer shall provide a written Method of Procedures and explicit step- by-step procedures to apply the change(s).			

#### Repairs and Spares

Tender Specifications		Single-chan IP Compliance (Yes/No)	Multi -chan IP Compliance (Yes/No)	Reasoning/References
11.1	The Tenderer shall supply a comprehensive spare part list (Including: Power Supplies, Printed circuit Boards, Modules, and Components).			

Tender Specifications		Single-chan IP Compliance (Yes/No)	Multi -chan IP Compliance (Yes/No)	Reasoning/References
11.2	Repair or replacement of in-warranty faulty equipment shall be done at no cost to Sentech.			
11.3	Damages occurring from misuse, malicious acts by Sentech and acts of nature are excluded and costs for repair or replacement will be for the account of Sentech in such cases. The envisaged costs will be communicated to Sentech followed by a quotation. Sentech will then either accept or reject said quotation.			
11.4	The delivery of faulty equipment to the Tenderer's premises for repairs shall be arranged mutually between Sentech and the successful Tenderer.			
11.5	End of Sale (EOS), End of Life (EOL) and End of Support announcements for equipment shall be communicated at least a year in advance to Sentech indicating the risks and options for replacement.			
11.6	State the End of Manufacturing, End of Life and End of Sale of equipment offered.			

#### Training and Skills Transfer

Tender Specifications		Single-chan IP Compliance (Yes/No)	Multi -chan IP Compliance (Yes/No)	Reasoning/References
12.1	The tenderer will provide a workshop on setup and basic fault finding to Sentech free of charge for a maximum of 10 people.			
12.2	Tenderers shall provide details of their training capabilities (facilities, personnel, and courses) in South Africa and internationally that would be available for this project.			
12.3	Training shall be made available to Sentech, in South Africa or abroad, on an as and when needed basis.			

Tender Specifications		Single-chan IP Compliance (Yes/No)	Multi -chan IP Compliance (Yes/No))	Reasoning/References
12.4	The Tenderer shall seek to establish opportunities that encourage employment, training and skills development by:			
12.5	Identifying the skills required in project's design, implementation, operation and maintenance phases;			
12.6	Arranging timely training and qualification requirements to meet the needs of skills development to support all phases of the project;			
12.7	Ensuring that training and qualification systems are aligned with the SAQA guidelines; and			
12.8	The Tenderer shall ensure maximum use of local employment to support all phases of the project.			
12.9	Tenderers shall provide details of South African and international accreditation of relevant training courses, where applicable.			
12.10	Tenderers shall indicate costs for all training proposals			
12.11	All training and training material shall be presented in English. Trainers shall be proficient in English to a Minimum Professional Level (i.e. in the field of expertise, the use of the language is sufficiently good that communication is seldom if ever impeded.)			

**Table 1: Functional Criteria**

**Total minimum qualifying functional score is 49 points and passing every individual section to be evaluated further or failing to meet the individual sections as stipulated in 14.2.**



#### **1.2.14.3 Risk Assessment**

The risk assessment will be conducted in two stages, with the stages being:

- Confirmation of supply performance on previous and current contracts with Sentech.
- Physical testing of units to ensure conformity to specifications as set out in the technical section above in a lab environment as stipulated by Sentech if deemed necessary.

**Bidders are required to make test units available to SENTECH within three weeks of tender closing date for a testing period of four weeks.**

#### **15. Evaluation of Price**

The bidders who pass the minimum qualifying functional score will be subjected to price evaluation. The bidder who provides the lowest price having met all the requirements will be recommended for appointment.



**16. Declaration of Authority**

The undersigned, who warrants that he / she is duly authorized to do so on behalf of the enterprise, confirms that the contents of this Bid Data is understood and all requirements will be adhered to.

<b>Name of Bidder</b>	<b>Signature</b>	<b>Date</b>	<b>Designation</b>



**TABLE 1: REFERENCES**

Please complete the customer reference table and relevant Contact telephone number and attach reference letters.

Customer		Service Provided	Contractual commencement date	Contractual completion date
1				
2				
3				
4				
5				
6				
7				

Name of Tenderer	Signature	Date