

## TENDER DATA

<b>Project title:</b>	Appointment of service providers for the Supply, Planning, Installation and Support of Licensed Band Native Ethernet microwave Equipment to Sentech SOC (Ltd) for a period of Three (3) years
<b>Bid no:</b>	<b>SENT-055-2023-24</b>

### 1. BACKGROUND

Sentech is a state-owned company and is the largest broadcasting signal distributor in Africa. Sentech is a licensed Electronic Communications Network Service provider in South Africa. Sentech currently operates several communication networks from which Internet access is provided for customers and internal use.

The microwave equipment to be procured, will assist be used to provision broadcast services to Sentech Transmitters as well as provisioning of Broadband services. The duration of supply, planning, installation, and support of microwave equipment will be for Three (3) years.

Sentech reserve the right to appoint one or multiple Bidders making use of framework agreements. Sentech reserve the right to appoint one service provider per Original Equipment Manufacturer.

### 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, facsimile 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" and one "Copy of Technical Proposal" together with a soft copy in PDF format of an electronic medium e.g. USB etc. The soft copy will consist of a single PDF document containing the complete response. 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 Date and Pricing schedule/schedule of rates as applicable) together with 1 copy of "Financial Proposal" together with a soft copy in PDF format of an electronic medium e.g. Compact Disk (CD), USB etc. The soft copy will consist of a single PDF document containing the complete Financial Proposal.

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**

Bidders that combine their Technical Proposal with the Financial Proposal (or any financial information) will be automatically disqualified and not be evaluated further.

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.

Only original signatures will be accepted.

### **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 retype or redraft the Bid documents.

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

Bidders shall bear 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. ADMINISTRATIVE RESPONSIVENESS CRITERIA**

Bidders are required to ensure that they meet all the Administrative Responsiveness Criteria.

### **7. BBBEE CODES AT SENTECH**

Sentech complies with the codes of good practice as prescribed by the DTI, to advance Broad Based Black Economic Empowerment.

### **8. SUBCONTRACTING AS A CONDITION OF BID**

The successful Bidder must subcontract a minimum of \_\_\_\_N/A\_\_\_\_% of the value of the contract to \_\_\_\_N/A\_\_\_\_ (specify the designated group targeted).

## 9. TRANSFORMATION PLAN

A transformation plan is a record of activities an entity intends to undertake to improve its BBBEE Level through Ownership, Management and Control; Skills Development; Enterprise and Supplier Development and Socio-Economic Development.

Sentech reserves the right to request a BBBEE transformation plan with clearly defined timelines and milestones if the recommended Bidder does not meet Sentech's transformation goals. These milestones must be achieved over the term of the contract. This transformation plan must be submitted within 10 working days from the written request, failing which Sentech reserves the right to withdraw its appointment of the preferred recommended Bidder.

## 10. 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?		No
If yes, specify the sector		
Specify minimum threshold applicable		

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

## 11. EVALUATION CRITERIA

The evaluation criteria are stipulated in 18 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.

## 12. AWARD OF BID/S

Sentech may appoint one or more suppliers, in whole or in part, or not appoint any supplier/s at all, and/or cancel the bid in its entirety, at Sentech's sole and exclusive discretion, in order to satisfy various needs which may be identified, and to manage certain risks associated with the supply of goods or services specified in respect of the Bid.

## 13. 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.

#### 14. 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.

#### 15. BID EVALUATION METHOD

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

<p><b>90/10 system will be followed for Technical and Price offer</b></p>	<ol style="list-style-type: none"> <li><b>1. 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.</li> <li><b>2. Stage 2 –Technical Evaluation</b> All Proposals that qualify based on the administrative responsiveness requirements will be evaluated against the Mandatory Evaluation Criteria  Bidders complying with ALL the Mandatory Evaluation Criteria will be evaluated against the Functional Evaluation Criteria, to pass Stage 2. The bidder must comply with all the minimum scoring in all the functional sections as per Table 2 page 20 to move to stage 3</li> <li><b>3. Stage 3 – Price and Preference</b> Financial Proposals for Qualifying Bidders will be opened and evaluated. Bidder's financial offers and BEE certificates will be ranked according to price and preference points from the highest number of points to the lowest.</li> </ol>
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#### 16. 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.
- 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.
- All corrections must be initialled. The use of corrective fluid is strictly prohibited.
- 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, 3.1, 3.2, 3.3, 4, 5, 6.1, 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.

## 16.1 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.

## 17. TECHNICAL RESPONSIVENESS COMPLIANCE

The Technical Evaluation will encompass evaluation of:

- Mandatory Criteria
- Functional / Technical Criteria

## 18. TECHNICAL EVALUATION CRITERIA

### 18.1 Mandatory Eligibility Criteria

The follow in criteria are mandatory to ALL BIDDERS:

<b>Mandatory Eligibility Criteria</b>	<b>Compliant (Indicate Yes or No)</b>	<b>Proof Required</b>	<b>Reference documentation supplied (Indicate Yes or No and reference page number)</b>
1. Minimum of 1 years' experience in the planning, installation, and maintenance of point-to-point licensed microwave equipment on buildings / mast and towers		Provide Project Experience sheet. (Complete Table 3: References page 19 of 20)	
2. Equipment provided in the Tender will be ICASA type approved on award.  The tenderer must commit to ensure that ICASA type approval of all other microwave frequency bands are available on request/ order.		Attach type approval Certificates of the proposed equipment or ICASA application that is in process.	
3. All planning parameter/equipment specifications will be sent to Sentech on request for Sentech ICS planning tool in the correct format.		Provide Statement of commitment on your company letterhead	
4. The equipment supplied, shall not be end of life and manufacturing within the next 5 years and be supported for another 5 years after end of manufacturing.		Provide Statement of commitment and compliance on your company letterhead	
5. Bidder to have a direct relationship with OEM		Provide Letter from OEM confirming relationship	
6. The bidder shall ensure that all his employees including bidder's sub-contractors comply with the Occupational Health and Safety Act, and have the required tools and PPE to perform their duties safely and report any risk or unsafe working conditions		Provide Statement of commitment on your company letterhead	
7. The bidder may be required to set up a lab test at the bidders expense as part of a risk assessment. (See point 17.1 Risk Assessment		Provide Statement of commitment on your company letterhead	

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

## 18.2 Functional Criteria

**Table 1: Functional Criteria**

Total minimum qualifying functional score for Section-1 General Equipment Requirements is **13** points.

	Technical Criteria	Compliance Statement Yes / No	Document Reference /Bidders& Comments / Pg. Number	Points
		<b>E.g. Yes</b>	<b>E.g. File A, Pg. 24, Paragraph 2 or Table 3b</b>	
<b>1</b>	<b>GENERAL EQUIPMENT REQUIREMENTS</b>			
	<b>Minimum Score =</b>			
1.1	Bidders shall provide details of the latest available system's software and hardware version that will be commercially offered to Sentech.			<b>1</b>
1.2	Bidders shall provide a detailed, five-year, roadmap concerning system's hardware (Point-to-Point Transmission equipment), software and services and future upgrades.			<b>1</b>
1.3	Equipment delivery lead time to the address SENTECH, Octave Street, Honeydew, Roodepoort, R.S.A. (Sentech requires 6-8 Weeks Delivery) Bidder to supply delivery lead times.			<b>1</b>
1.4	All documentation, system workings shall be in English.			<b>1</b>
1.5	Minimum of 1 years' experience in the Installation and maintenance of licensed microwave equipment on buildings / mast and towers  1 to 2 years = 1 3 to 4 years = 3 Greater than 5 years = 5		Provide Project Experience sheet and contactable references. (start date & end date of projects must indicate years of experience)	<b>5</b>
<b>1.6</b>	<b>Reliability</b>			
1.6.1	Bidder shall provide guaranteed MTBF based upon that achieved by equipment already in field use. Bidder should include MTBF tables.			<b>1</b>
<b>1.7</b>	<b>Quality Assurance</b>			
1.7.1	The bidder shall provide evidence that the manufacturing process conforms to quality management standard bodies such as "ISO 9001" or equivalent".			<b>1</b>
1.7.2	All software, development, installations, configurations, testing and job control language procedures produced by the Bidder, its personnel, agents, or sub-contractors shall be free of technical defects (bugs) and shall be so guaranteed for a period of 12 months by the Bidder after acceptance by Sentech.			<b>1</b>
<b>1.8</b>	<b>Safety</b>			
1.8.1	The use of any component or material that is potentially dangerous to human health shall be clearly			<b>1</b>

	stated, indicated as warning signs on such component/ material and in handbooks.			
<b>1.9</b>	<b>Environmental Conditions, Equipment shall operate without degradation of reliability or specification at:</b>			
1.9.1	Indoor temperature of 0° to +45° Celsius at relative humidity of up to 95%			1
1.9.2	Outdoor temperature of at least –15° to +55° Celsius at relative humidity of up to 95%			1
1.9.3	Labelling on equipment shall be resistant to the environmental conditions.			1
<b>1.10</b>	<b>Mechanical/Physical</b>			
1.10.1	Indoor equipment shall be 19' rack Mountable			1
1.10.2	Depth of indoor equipment shall not exceed 600mm			1
			<b>Total</b>	<b>18</b>

Total minimum qualifying functional score for Section-2 General Equipment Requirements is **32** points.

<b>2</b>	<b>RADIO REQUIREMENTS-Split Mount</b>	<b>Compliance Statement Yes / No</b>	<b>Document Reference /Bidders&amp; Comments / Pg. Number</b>	<b>Points</b>
<b>2.1</b>	<b>Transmitter characteristics</b>			
2.1.1	The bidder shall specify minimum and maximum output power ( <b>Bidder must Provide Table</b> ) _ for all supported frequency bands.			2
2.1.2	The bidder shall specify the Adaptive Transmitter Power Control (ATPC) range.			1
2.1.3	Equipment shall have TX mute mode			1
<b>2.2</b>	<b>Receiver Characteristics</b>			
2.2.1	The bidder shall provide the receive levels of the all associated modulation schemes per frequency band. (Provide table)			1
2.2.2	The bidder shall specify the maximum input level that the receiver can tolerate.			1
2.2.3	Transmit and receive frequencies of the outdoor units shall be adjustable over the widest range possible. <b>Bidder must complete Table 3 on Page 30 Contract data</b>			1
<b>2.3</b>	<b>Equipment Configuration: The proposed system shall be capable of handling the following configuration and the bidder should provide detailed documentation explaining the points below:</b>			
2.3.1	1+0 Configuration			1
2.3.2	1+0 XPIC			1
2.3.3	N+0 Configuration			1
<b>2.4</b>	<b>RF Requirements</b>			
2.4.1	It shall be possible to change to any transmit and receive operating frequency within a particular band by software only.			1
2.4.2	Provide details of how to change frequency, including which modules, set-up and test equipment required shall be specified.			1
2.4.3	It shall be possible to operate in co-channel cross polar mode without degradation of specifications.			1



2.4.4	Adaptive Coding and Modulation (ACM) on the air interface,			1
<b>2.5</b>	<b>Outdoor Unit</b>			
2.5.1	Light weight ODU for easy handling. Bidder to specify ODU weight of equipment.  (Provide data sheets)			1
2.5.2	ODU can be mounted directly on antenna, flexible waveguide, Hybrid Combiner (1 + 0)			1
2.5.3	Receive Signal Strength test point shall be available on the ODU for measurements during installation and maintenance.			1
2.5.4	Bidder to indicate which of the proposed equipment will require sub-band filters by frequency and ranges  <b>Bidder Must Complete Table 3 page 30 contract data (7,10,11,13 15, 18, 23, 38 GHz and E-Band) – 1 point per frequency band completed in Table 3</b>			9
<b>2.6</b>	<b>Antenna</b>			
2.6.1	Antennas provided shall be able to cover all the frequency bands.			1
2.6.2	All mounting brackets to be supplied and shall be galvanized or Stainless Steel.			1
2.6.3	Reflectors of Antenna shall be painted with white diffusive paint.			1
2.6.4	Bidder to supply gain of antennas with the respective Frequency Band and diameters (indicate in a table/datasheet).			1
2.6.5	The mechanical strength of antenna, radome and antenna fixing system shall not cause damage by winds of 200km/h.			1
2.6.6	The Bidder shall state the size and weight of each antenna as well as the wind loading.  (Provide table or data sheets that will cover the following dimensions, weight, Axial Force FA, Side Force SF, Twist Momentum TM)			5
<b>2.7</b>	<b>Installation</b>			
2.7.1	The bidder shall be prepared to provide skills transfer to Sentech's employees during onsite installation and commissioning.			1
<b>2.8</b>	<b>Planning</b>			
2.8.1	Where required Sentech may request bidder to assist with either a desktop or detailed microwave links design.  In the case of a detailed link designs the bidder would be required to provide detailed site survey documentation to enable Sentech to apply for frequencies and site acquisitioning.  Sentech will also evaluate and approve any desktop and detailed link planning.			1
2.8.2	The bidders planning design may be used by Sentech internally for further analysis on Sentech's planning tool.			1
			<b>Total</b>	<b>39</b>



Total minimum qualifying functional score for Section-3 General Equipment Requirements is **65** points.

<b>3</b>	<b>EQUIPMENT SPECIFICATION</b>	<b>Compliance Statement Yes / No</b>	<b>Document Reference /Bidders&amp; Comments / Pg. Number</b>	<b>Points</b>
3.1	Native Ethernet Microwave Radio- Split Mount			
3.1.1	Provide table with maximum capacity achievable versus modulation and receive level. <b>(Bidder Must Complete Table 1 and 2 on page 30 in Contract Data)</b>			<b>2</b>
3.1.2	The IDU shall consist of LCT port, Service Channel, EOW port with handset installed for maintenance. Power supply, synch port (External clock input/output) & Aux ports.			<b>1</b>
3.1.3	Capacities shall be software selectable			<b>1</b>
3.1.4	All Cross connections and add & drop will be done on the IDU and be software controlled.			<b>1</b>
<b>3.2</b>	<b>Native Ethernet functionality- Split Mount</b>			
3.2.1	Carrier class Ethernet,			<b>1</b>
3.2.2	The Bidder is to specify the available Ethernet ports on the IDU, including number of ports, interface types, port speeds.			<b>1</b>
3.2.3	Layer 2 functionalities: MAC switching MAC Address learning.			<b>1</b>
3.2.4	The Bidder shall specify the degree to which the equipment complies with IEEE 802.1p/q (traffic prioritisation, including QoS (Service Aware Traffic Management) and VLAN tagging),			<b>1</b>
3.2.5	Flow through Q in Q (802.1 ad),			<b>1</b>
3.2.6	Compliance to synchronisation standards-(Indicate what synch ports available).			<b>1</b>
3.2.7	Bidder to provide details of how Metro Ethernet is transported and dealt with			<b>1</b>
3.2.8	The bidder to indicate the packet sizes that are supported by the system, including jumbo frames (At least 1518)			<b>1</b>
3.2.9	ETH OAM- 802.1ag Service OAM, Y1731 Performance Monitoring			<b>1</b>
<b>3.3</b>	<b>All Outdoor Packet Microwave Radio</b>			
3.3.1	Capacities shall be software selectable.			<b>1</b>
<b>3.4</b>	<b>The POE Ethernet Interfaces shall specify:</b>			
3.4.1	Ethernet 100Base-T, 1000Base-T, 1000 Base-SX/LX LC SFP, 10Gig are supported			<b>1</b>
<b>3.5</b>	<b>Ethernet Capabilities/Functions</b>			
3.5.1	Bidder to indicate the packet sizes that are supported by the system, including jumbo frames (At least 1518)			<b>1</b>
3.5.2	The Bidder shall specify the degree to which the equipment complies with IEEE 802.1p/q (traffic prioritisation, including QoS (Service Aware Traffic Management) and VLAN tagging),			<b>1</b>
3.5.3	Flow through Q in Q (802.1 ad),			<b>1</b>
3.5.4	Bidder to provide details of how Metro Ethernet is transported and delt with			<b>1</b>

3.5.5	ETH OAM- 802.1ag Service OAM, Y1731 Performance Monitoring			1
<b>3.6</b>	<b>Radio Requirements-All Outdoor</b>			
3.6.1	Modulation schemes: The bidder shall specify the modulation schemes associated with required receive levels <b>Bidder Must Complete Table 4 and 5 page 31 of Contract Data</b>			1
3.6.2	Transmit and receive frequencies of the outdoor units shall be adjustable over the widest range possible. The frequencies shall be adjustable from the LCT. <b>Bidder must complete Table 6 on page 31 of Contract Data</b>			1
<b>3.7</b>	<b>Equipment Configuration: The proposed system shall be capable of handling the following configuration and the bidder should provide detailed documentation explaining the points below:</b>			
3.7.1	1+0 (Unprotected)			1
3.7.2	1+0 XPIC			1
<b>3.8</b>	<b>RF Requirements- All Outdoor</b>			
3.8.1	It shall be possible to change to any transmit and receive operating frequency within a particular band by software only.			1
3.8.2	Details of how to change frequency, including which modules, set-up and test equipment required shall be specified.			1
3.8.3	It shall be possible to operate in co-channel cross polar mode without degradation of specifications			1
<b>3.9</b>	<b>Outdoor Unit</b>			
3.9.1	Light weight ODU for easy handling (Bidder to supply weight values).			1
3.9.2	Weatherproof unit housing microwave transmitter and receiver, duplexer, and filters (IP54).			1
3.9.3	ODU can be mounted directly on antenna, flexible waveguide, Hybrid Combiner (1 + 0) system.			1
3.9.4	Receive Signal Strength test point shall be available on the ODU for measurements during installation and maintenance.			1
<b>3.10</b>	<b>Antenna- All Outdoor</b>			
3.10.1	Antennas provided shall be able to operate in the range from 7GHz to 80 GHz			1
3.10.2	Specify available antenna sizes for all frequency bands			1
3.10.3	Antenna shall be mounted directly to ODU or via a waveguide			1
3.10.4	All mounting brackets to be supplied and shall be galvanized			1
3.10.5	Reflectors of Antenna shall be painted with white diffusive paint			1
3.10.6	Bidder to supply gain of antenna with the respective Frequency Band and diameter (indicate in a table)			1
<b>3.11</b>	<b>Set-up, Maintenance, and repair for split mount and all outdoor</b>			
3.11.1	Equipment shall have built-in facilities to enable basic set-up, maintenance, and repair. These built-in facilities shall have the capability to set frequency, power, loop backs as well as monitor alarms.			1

3.11.2	The bidder shall specify any special maintenance required where equipment is operated in stressful environments such as high/low temperatures.			1
3.11.3	Equipment's and individual modules shall be protected against damage that may result from faults such as short circuits, excessive temperatures etc. When such faults have cleared, normal operations shall resume automatically.			1
3.11.4	The bidder shall supply a proposed monthly, half yearly and yearly routines as part of preventative maintenance.			1
3.12	Equipment Configuration for split mount and all outdoor			
3.12.1	The complete operating set-up of each link terminal (all Equipment belonging to a specific link, located at one site) shall be determined by a software configuration file stored in non-volatile, programmable memory of the terminal. (Bidder to specify their process if different).			1
3.12.2	This memory shall be capable of storing two different sets of configuration files. The terminal shall be capable operating from either of these configuration files by way of a management instruction. (Bidder to specify their process if different).			1
3.12.3	Switching between sets of configuration files shall only affect the equipment functions that have different configuration file parameters. Specifically, the traffic service shall not be affected unless there is a difference in the parameters of the traffic channel. (Bidder to specify their process if different).			1
3.13	Equipment exchange (Split mount and All Outdoor)			
3.13.1	Exchange of equipment or modules shall not require a selection procedure or realignment.			1
3.13.2	Modules should be hot swappable for easier maintenance where possible.			1
3.13.3	For redundant systems, it shall be possible to exchange any redundant equipment or module without affecting other functions, e.g., traffic service.			1
3.14	Security (Split mount and All Outdoor)			
3.14.1	Secure encrypted communications.			3
3.14.2	Encryption used. Bidder to indicate what is employed.			3
3.15	Network Management System (Split mount and All Outdoor)			
3.15.1	Provide capabilities of the proposed Network Management system (as indicated and not limited to the items below for end-to-end management) <b>Tenderer to confirm if NMS platform can manage both split mount and all outdoor.</b>			1
3.15.2	Capable of In-band management channel or out-band management			1
3.15.3	FCAPS- Bidder to give full description of capabilities			1
3.15.4	Ethernet OAM for fault management and performance monitor.			1
3.15.5	Hardware failures			1
3.15.6	Device monitoring			1
3.15.7	Access line failures			1
3.15.8	Radio link failures			1

3.15.9	Software generated alarms and other alarms, logs (provide further information)			1
3.15.10	NMS capabilities to provide traffic engineering and management			1
3.15.11	Email based and web-based notification for critical events			1
3.15.12	Performance and Configuration Management by way of NMS			1
3.15.13	Performance reports and inventory reports			1
3.15.14	Signal receive levels			1
3.15.15	Loop-back tests under operator's control and diagnostic tests			1
3.15.16	Service statistics (e.g. availability, frame loss ratio, data transit delay, bit error rates, etc.)			1
3.16	LCT (The following procedures shall be available by way of the Local Configuration Tool:			
3.16.1	Equipment configuration management			1
3.16.2	New equipment set up procedure			1
3.16.3	Changes done on LCT / GUI must be visible on the NMS			1
3.16.4	Read/Write Access and security features (Password control) shall be indicated			1
3.16.5	Maintenance staff must be able to configure, maintain and monitor the equipment under test via the LCT /GUI software (Diagnostic tests and loopback).			1
3.16.6	Bidders should give full capabilities of the LCT / GUI software tool.			1
3.17	OSS Integration			
3.17.1	Easy integration to higher management layers			1
3.17.2	Standardised secure protocols-SNMP v2, v3 (backward compatible)			1
3.17.3	Cost effective use of IP Network System Software releases			1
3.18	Upgradability to Higher Capacities			
3.18.1	Indicate how microwave system can be upgraded (onsite or remotely) or through the NMS.			1
			<b>Total</b>	<b>80</b>

Total minimum qualifying functional score for Section-4 General Equipment Requirements is **7** points.

<b>4</b>	<b>BIDDER SUPPORTING REQUIREMENTS</b>	<b>Compliance Statement Yes / No</b>	<b>Document Reference /Bidders&amp; Comments / Pg. Number</b>	<b>Points</b>
4.1	Performance Guarantee period			
4.1.1	The proposed system shall include a performance guarantee period of at least seven years (7) after installation.			1
4.1.2	During this period, the bidder shall supply material, software, equipment, services and maintenance support.			1
4.2	Spares & Repairs			
4.2.1	The bidder shall supply a list of common modules and as per design spares necessary for the maintenance of the equipment.			1
4.2.2	Modules shall be exchanged if failures happen during warranty period.			1
4.2.3	Replacement modules must be guaranteed for 12 months.			1
4.2.4	The bidder must guarantee off the shelf availability of spares locally.			1
4.2.5	The bidder shall state guaranteed turnaround times for repairs.			1
4.3	Training			
4.3.1	The bidder shall provide Sentech theoretical & practical training at selected local venue as agreed with Sentech.			1
4.3.2	The training shall cover the areas of Planning, Operational & Maintenance and NMS. Sentech Employees will attend the stipulated training and shall include the provision of all necessary course material and hand books.			1
4.3.3	Advance Training: Any advanced training must be communicated to Sentech.			1
4.4	Technical demonstration			
4.4.1	Sentech may require a test to verify the equipment on offer is capable and is within the specifications as per submission, at the bidders cost.. The tests shall be done at a venue the bidder has identified within the Gauteng region. The tests will be done during a course of 3 days. Sentech will indicate the relevant days the required demonstration to be done.			1
			<b>Total</b>	<b>11</b>

Total minimum qualifying functional score for Section-5 General Equipment Requirements is **20** points.

5	SERVICE LEVEL CATEGORIES, SERVICE LEVEL AND SUPPORT AGREEMENTS	Compliance Statement Yes / No	Document Reference /Bidders& Comments / Pg. Number	Points
5.1	Service level Categories			
5.1.1	A Category 1 incident is an incident that will result in a direct and significant loss in the beneficial use of the deployed network as well as a corresponding loss of revenue. If Sentech is unable to resolve the problem, it will be handed to the Tenderer for final resolution as a Contractual Incident. The successful Tenderer shall restore the services within the agreed SLA time frames. <b>(Refer to Table 7 on Page 31 of Contract Data).</b>			1
5.1.2	A Category 2 incident is an Incident resulting in operational problems that do not lead to a loss of revenue but degrades redundancy or the operational capability of the Network. Sentech is unable to solve the problem and the problem is, therefore, handed to the successful Tenderer for resolution as a Contractual Incident. This shall include the failure of redundant equipment and failures that could potentially lead to a loss of revenue. <b>(Refer to Table 7 on Page 31 of Contract Data).</b>			1

5.1.3	A Category 3 incident is when Sentech requires assistance with, the interpretation of measurements or general information on the capabilities of the technology deployed within the network. Information includes updates on problems identified by other users and the associated modifications or software patches. <b>(Refer to Table 7 on Page 31 of Contract Data).</b>			1
5.2	Service Level Parameters			
5.2.1	Change management: this refers to any Incident or event that alters the existing state of Sentech's Transmission network, including software, hardware, networks and facilities. It shall be a mutual goal to minimize disruption of any services by using a standard process to communicate and implement changes. The Sentech prescribed Change Management procedure shall be adhered to.			1
5.2.2	Supported Hardware: repair or replacement of in-warranty faulty equipment shall be done at no cost to Sentech. Damages occurring from misuse, malicious acts 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 the said quotation.			1
5.3	Software Maintenance: Software maintenance shall include the following aspects of services:			
5.3.1	In-service maintenance releases or workarounds on existing solutions.			1
5.3.2	The deployment, implementation and testing of OEM maintenance releases and system modifications required to meet agreed system specifications.			1

5.3.3	Maintenance releases intended to remedy deficiencies in the software or improve operating performance without altering the basic functionality or configuration. The Tenderer shall be an OEM or have a direct relationship with the OEM.			1
5.3.4	A maintenance release schedule and an impact summary shall be made available to Sentech reflecting the schedule of changes.			1
5.3.5	The successful Tenderer shall preserve existing data structures and file layouts wherever possible. Where there is a change to the data structures or file layouts, the successful Bidder shall co-ordinate these changes carefully in conjunction with Sentech and provides data conversion programs as necessary, thereby minimizing any disruptions to live operations or existing data.			1
5.3.6	The successful Tenderer shall keep Sentech fully informed about the OEM's Customer Service Bulletins (CSB) informing them of pending maintenance releases.			1
5.3.7	The CSB shall fully describe the content of such releases with reference to outstanding problems, indicating specific problems and the resolution thereto.			1
5.3.8	The successful Tenderer, in conjunction with Sentech, shall carry out instructions in CSB as per planned schedule (schedule includes installation, testing, production and training environments – where applicable).			1

5.4	Repairs and Spares			
5.4.1	The delivery of faulty equipment to the successful Tenderer premises for repair shall be arranged mutually between Sentech and the successful Tenderer.			1
5.4.2	The amount of spares held shall at any time be sufficient to be able to address the response times as specified in the Table. <b>(Refer to Table 7 on Page 30 of Contract Data).</b>			1
5.4.3	The successful Tenderer must guarantee the supply of the required equipment in accordance with the relevant Back-to-Back Support contracts with the OEM.			1
5.4.4	In order to avoid unnecessary charges, the vendor shall screen all units marked for Return Material Authorisation (RMA) in South Africa prior to returning equipment to OEM. This will highlight any “no fault found” units at a very early stage, which may have been returned due to other issues such as incorrect cabling, and also to identify any damaged or inoperable units that may be attributed to poor handling, incorrect installation or general misuse. This facility will allow Sentech to inspect and discuss any such issues in a local environment which, would normally only be possible at the OEM premises outside the country. The turn-around time for faulty equipment repairs must be specified and adhered to.			1
5.4.6	The upgrade path for all equipment (HW & SW), including the impact of the said upgrades on the whole network, must be highlighted.			1



5.5	Support			
5.5.1	Respondents shall offer as an option an annual maintenance and support programme for equipment offered. <b>(As per Table 7 on Page 31 of Contract Data).</b>  Respondent to provide example of maintenance contract for future discussion			1
5.5.2	During this period, the supplier shall supply material, equipment, services and maintenance support.			1
5.5.3	Respondents shall offer as an option a time and material  Respondent to provide example of maintenance contract for future discussion			1
5.5.4	The Tenderer shall provide a locally based support and shall be available on request at any time.			1
5.5.5	The Tenderer will be held responsible for all support and guarantees offered to Sentech.			1
			Total	23

Total minimum qualifying functional score per section to pass is as follow. **Table 2**

	Maximum Score	Minimum Score
Section 1	18	13
Section 2	39	32
Section 3	80	65
Section 4	11	7
Section 5	23	20

## 19. Evaluation of Price and Preference

This Bid will be evaluated on a points system based on weighted average score for Price and Preference as per Preferential Procurement Framework Act of 2000 (Act 5 of 2000).

## 20. Preference Point allocation – 90/10

Price / Preference	Weighting percentage
Preference:	10%
Price:	90 %
Total must equal:	100%

Sentech will award preference points as follows:

Goal	Points	Evidence required
Historically disadvantaged by unfair discrimination on the basis of Race	5	A valid BBBEE Certificate showing at least 51% black ownership
	2	A valid BBBEE Certificate showing at least 25.1 – 50% black ownership
	1	Black owned company showing at least 5 – 25% black ownership
	0	Below 5%
Historically disadvantaged by unfair discrimination on the basis of Gender (women)	4	A valid BBBEE Certificate showing at least 51% women ownership
	2	A valid BBBEE Certificate showing at least 25.1 – 50% women ownership
	1	A valid BBBEE Certificate showing at least 5-25% women ownership
	0	A valid BBBEE Certificate showing at less than 5% women ownership
Historically disadvantaged by unfair discrimination on the basis of disability	1	A doctor's note confirming disability
<b>Total Points</b>	<b>10</b>	

## 21. Price Calculation 90/10

The following formula will be used to calculate the points for price.

$$P_s = 90 \left[ \frac{1 - (P_t - P_{min})}{P_{min}} \right]$$

Where:

$P_s$	=	Points scored for price of bid under consideration
$P_t$	=	Rand value of bid under consideration
$P_{min}$	=	Rand value of lowest acceptable bid

**22. Declaration of Authority**

The undersigned, who warrants that he / she is duly authorised 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.

Name of Bidder	Signature	Date	Designation

### TABLE 3: REFERENCES

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

Customer		Service Provided	Contact Person	Contact no.	tel.	Contractual commencement date	Contractual completion date
1							
2							
3							
4							

5						
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<b>Name of Tenderer</b>	<b>Signature</b>	<b>Date</b>