

TENDER DATA

Project title:	Request for service provider(s) for the Supply, Planning, Installation and Support of Point to Multipoint Microwave Equipment to Sentech SOC (Ltd).
Bid no:	SENT-056-2023-24

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.

Sentech intends to appoint service provider(s) that will supply, plan, install and provide training on Point to Multipoint equipment.

This RFP is open to the market and bidders are allowed to offer the equipment from any OEM vendor in response to this RFP.

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 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. 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 ____30____% of the value of the contract to ____ QSEs / EMEs ____ (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. ALTERNATIVE/SUBSTITUTE PRODUCTS

In the case of contracts and/or panels which are in excess of 12 (twelve) months, Sentech shall be entitled to consider alternative products and product upgrades during the tenure of the contract and/or panel in order to accommodate new products and upgrades in the market. Bidders are required to bring all such developments to the attention of Sentech for approval. No alternative products may be supplied without Sentech's prior written approval.

14. 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.

15. 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.

16. BID EVALUATION METHOD

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

<p>A 80/20 system will be followed for Technical and Price offer</p>	<ol style="list-style-type: none"> 1. Stage 1 – Administrative Responsiveness Evaluation All the Technical Proposals will be evaluated against the Administrative responsiveness requirements as set out in the list of returnable documents. 2. Stage 2 –Section A: Mandatory Technical Criteria All Proposals that qualify based on the administrative responsiveness requirements will be evaluated against the Mandatory Evaluation Criteria as set out under section A. Bidders must COMPLY with ALL the Mandatory Evaluation Criteria to qualify for further evaluation. 3. Stage 3 –Section B: General Equipment Requirements All Proposals that qualify based on the Stage 2 - Section A: Mandatory Technical Criteria will be evaluated against Section B: General Equipment Requirements. Section B has a minimum qualifying score of 57 points out of 67 points. Bidder who fail to obtain this minimum score will not be evaluated further. 4. Stage 4 –Section C: Unlicensed Point to MultiPoint All Proposals that qualify based on the Stage 3; Section B: General Equipment Requirements will be evaluated against Section C: Unlicensed Point to MultiPoint. Section C has a minimum qualifying score of 31 points out of 36 points. Bidder who fail to obtain this minimum score will not be evaluated further on this sections requirement. 5. Stage 5 - Risk Assessment Bidders complying with Stages 2, 3 and 4 will be evaluated against the Risk Assessment. The evaluation committee reserves the right to conduct a risk assessment on all bidders to establish and assess capacity and risk level to Sentech if a bidder is to be appointed to deliver services. 6. Stage 6 – Price and preference evaluation Financial Proposals for Qualifying Bidders after Risk Assessment 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. 7. Stage 7 - Appointment Post the results of the Risk Assessment; Sentech will appoint qualifying bidders for above sections 8. Stage 8 – Contracting and Compliance to terms and conditions of this Tender Data. After the award of this tender Sentech will sign a Contract that contains the terms and conditions of this Tender Data.
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17. 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.

17.1 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.

18. TECHNICAL RESPONSIVENESS COMPLIANCE

Section A: Mandatory Technical Criteria

Section B: General Equipment Requirements

Section C: Functional Criteria for Unlicensed Point to MultiPoint

Section A contains Mandatory criterion. Bidder who fail to comply with ALL the criterion will not be evaluated further.

Section B contains functional scoring criterion that covers general equipment requirements. Section B has a minimum qualifying score of 57 points out of 67 points. Bidder who fail to obtain this minimum score will not be evaluated further.

Section C contains functional scoring criterion that covers Unlicensed Point to MultiPoint requirements. Section C has a minimum qualifying score 31 points out of 36 points. Bidder who fail to obtain this minimum score will not be evaluated further on this sections requirement.

Following the evaluation process of these sections Sentech reserves the right to conduct a Risk Assessment on all qualifying bidders.

Post the Risk Assessment and Price and Preference evaluation; Sentech will appoint the qualifying bidder(s)

19. TECHNICAL EVALUATION CRITERIA

19.1 Mandatory Eligibility Criteria

SECTION A: MANDATORY TECHNICAL CRITERIA

Mandatory Eligibility Criteria	Compliant (Indicate Yes or No)	Reference documentation and proof required (Indicate Yes or No and reference page number)
1. Proven track record of Supply & Installation of Point of Multi Point radio Equipment (Attach proof: list of location, contact references for verification). All references must be contactable and be available for site visit. Any references provided with NDA's (Non-Disclosure Agreements) that are not contactable will not be considered or counted as a reference.		Provide letter from reference showing proven track record of Supply & Installation of Point of Multi Point radio equipment
2. All planning parameter/equipment specifications (signature width/depth etc.) /antenna radiation patterns will be sent to Sentech on request for Sentech ICS planning tool in the correct format.		Provide Statement of commitment on your company letterhead
3. All Equipment provided in the Tender will be ICASA type approved. ICASA type approval of PtMP equipment must be available for Unlicensed frequency bands as per ICASA band plan on submission of the tender. Failure to supply the letter of compliance will lead to automatic disqualification.		ICASA Type approval document / confirmation
4. Sentech may require bidder to demonstrate successful operation of their proposed equipment to Sentech in a live LOCAL NETWORK on contracting phase. This may form part of Sentech Risk assessment		Provide Statement of commitment on your company letterhead
5. Bidder to show road map of equipment supplied, which will indicate that equipment supplied is not end of manufacturing/support in the next 10 years.		Provide OEM letter
6. Bidder is responsible for training of the SMME's and Sentech teams on the supplied equipment and installation thereof while awaiting equipment delivery.		Provide Statement of commitment on your company letterhead
7. Provide Complete network design of the Point to Multipoint network as required in the supplied site list. Must include: <ul style="list-style-type: none">• Coverage Plots generated using terrain maps.• Capacity planning (Throughput per site) Bidders are required to submit all digital copies of the design including details of software used for the designs		Provide network design based on provided requirements. AND Provide statement of commitment that the bidder is in possession planning tools and capabilities. (Reference the utilised tool)

8. All OHS requirements must be adhered to while doing the Site visits and teams must have the required safety equipment and certification to climb towers.		Provide statement of commitment
9. Service provider must ensure that all teams are equipped with the required tools and road worthy vehicles that is fit for purpose (urban and rural) of installation and maintenance work, vehicles must be able to travel off road. (Binoculars, measuring equipment, etc,) and safety equipment to be able to complete the Initial Site Surveys (ISS) and Technical Site Surveys (TSS).		Provide statement of commitment
10. Detailed project plan must be provided that will fit in with the required timelines as set out by Sentech (All installation work needs to be completed 10 weeks from date of appointment).		Provide detailed project plan in Gantt chart
11. The Service provider must provide proof of existing resources within the company that will work on the project and indicate how they will be subcontracting to be able to deliver the required network within the allocated timelines. All bidders must sub-contract a minimum of 30% of the installation work of the CPE's to SMME's as provided in the SMME list by Sentech (Annexure A). Base Station installations will be conducted by the Bidder. The Service provider will be 100% responsible for the management, deployment timelines, and quality of the installation work.		Detailed breakdown and description of available resources in a table format within the company and indicate which of the supplied list of Sentech subcontractors would be used.
12. Provide number of teams that can be deployed concurrently.		Provide letter of commitment on a letter head including an indication of the work to subcontracted to Sentech SMME panel of installers

NOTE: Bidders that does not comply with all the above criteria or do not present sufficient proof of compliance will not be eligible to be evaluated further.

SECTION B: GENERAL REQUIREMENTS

Bidders must supply proof of their capability and capacity to do the required work. Bidders will score points as indicated in the table below, based on proof supplied on the minimum criteria.

Proof can be in the form of Datasheets; Product brochure; Installation manuals; Systems manuals; User Manuals; White papers; Diagrams; Tables etc.

	Functional Criteria	Compliance Statement Yes / No	Document Reference- /Bidders & Comments/ Pg. Number	Points
		E.g. Yes	E.g. File A, Pg. 24, Paragraph 2	
	SECTION B			
1	GENERAL EQUIPMENT REQUIREMENTS			5
1.1	Bidders shall provide details of the latest available system's software and hardware version that will be commercially offered to Sentech.			1
1.2	Bidders shall provide a detailed, ten-year, roadmap concerning system's hardware (Point-to-MultiPoint Transmission equipment), software and services and future upgrades.			1
1.3	Equipment delivery lead time to the address SENTECH, Octave Street, Honeydew, Roodepoort, R.S.A. (Sentech requires 4-8 Weeks Delivery) Bidder to supply delivery lead times.			1
1.4	Bidders shall be capable to guarantee future equipment support. The optimum for Sentech would be for a minimum of 10 years after the 1st equipment order by Sentech. Any refusal or deviation from this clause may necessitate disqualification. <i>The Bidder must provide the end of manufacturing / life and end of support dates for all hardware and software items proposed.</i>			1
1.5	All documentation, system workings shall be in English.			1
1.6	Reliability			3
1.6.1	Bidder shall provide guaranteed MTBF based upon that achieved by equipment (including any pluggable units such as SFP's) / already in field use. Bidder should include MTBF tables (Lowest to highest).			1
1.6.2	Should actual use by Sentech indicate that MTBF is not met, the bidder shall, at his own cost, make modifications to equipment to be able to meet MTBF.			1

1.6.3	All equipment shall be subjected to a factory burn-in process. The bidder shall supply detail of this.			1
1.7	Quality Assurance			1
1.7.1	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.			1
1.8	Health, Safety, and Generic Emissions			3
1.8.1	Equipment shall comply with relevant and applicable ETSI standards.			1
1.8.2	The use of any component or material that is potentially dangerous to human health shall be clearly stated, indicated as warning signs on such component/ material and in handbooks.			1
1.8.3	OHS Act processes & procedures (Example Safety files) to be adhered to during installations if required.			1
1.9	Installation			6
1.9.1	The bidder shall ensure that all his employees including bidder's sub-contractors comply with the Occupational Health and Safety Act.			1
1.9.2	The bidder shall identify any risks/unsafe working conditions and communicate to the relevant Health & Safety officer and then communicate to Sentech personnel.			1
1.9.3	Bidder's employees including subcontractors shall report all incidents/accidents to the responsible Health & Safety Representative.			1
1.9.4	The bidder's employees and sub-contractors must be certified to work at height with the relevant certifications and must use personal protective equipment (PPE).			1
1.9.5	The bidder's employees and subcontractors shall use a full body harness and shock absorbing lanyards, which is mandatory. No body belts will be allowed.			1

1.9.6	The bidder shall be prepared to provide skills transfer to Sentech's employees during onsite installation and commissioning.			1
1.10	Professional Services			7
1.10.1	Bidder should indicate available professional services available for example, Radio planning & design, Interference planning.			1
1.10.2	The bidder shall be able to assist with a comprehensive site planning / site survey document that includes the necessary information to accomplish any design and installation at no cost to Sentech.			1
1.10.3	Any design requested shall be analysed to ensure futureproof. The planning design by the bidder shall be sent to Sentech planning department or otherwise specified. Sentech will confirm acceptance of design before any installation can take place.			1
1.10.4	The bidders planning design may be used by Sentech internally for further analysis on Sentech's planning tool.			2
1.10.5	The planning design by the bidder shall comply with the required service level agreement as specified.			2
2	BIDDER SUPPORTING REQUIREMENTS			
2.1	Performance Guarantee period			3
2.1.1	The proposed system shall include a performance guarantee period of at least ten years (10) after installation.			1
2.1.2	During this period, the bidder shall supply material, software, equipment, services and maintenance support.			1
2.1.3	Any refusal or deviation from this clause may necessitate disqualification. (As per clause 2.1.2).			1
2.2	Spares & Repairs			5
2.2.1	The bidder shall supply a list of common modules and as per design spares necessary for the maintenance of the equipment.			1
2.2.2	Modules shall be exchanged free of charge if failures happen during warranty period.			1

2.2.3	Replacement modules must be guaranteed for 12 months after module is replaced.			1
2.2.4	The bidder must guarantee off the shelf availability of spares locally (in South Africa).			1
2.2.5	The bidder shall state guaranteed turnaround times for local and international repairs.			1
2.3	Training			3
2.3.1	The bidder shall provide Sentech/SMME theoretical & practical training at selected local venue as agreed with Sentech.			1
2.3.2	The training shall cover the areas of Planning, Installation, Operational & Maintenance and NMS. Sentech/SMME will attend the applicable training and shall include the provision of all necessary course material and hand books in English.			1
2.3.3	Advance Training: Any advanced training must be communicated to Sentech.			1
3	SERVICE LEVEL AND SUPPORT AGREEMENTS			
3.1	Service level			1
3.1.1	Service level agreements will be signed after contract signoff.			1
3.2	Service Level Parameters			2
3.2.1	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
3.2.2	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

3.3	Software Maintenance: Software maintenance shall include the following aspects of services:			8
3.3.1	In-service maintenance releases or workarounds on existing solutions.			1
3.3.2	The deployment, implementation and testing of OEM maintenance releases and system modifications required to meet agreed system specifications.			1
3.3.3	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
3.3.4	A maintenance release schedule and an impact summary shall be made available to Sentech reflecting the schedule of changes.			1
3.3.5	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
3.3.6	The successful Tenderer shall keep Sentech fully informed about the OEM's Customer Service Bulletins (CSB) informing them of pending maintenance releases.			1
3.3.7	The CSB shall fully describe the content of such releases with reference to outstanding problems, indicating specific problems and the resolution thereto.			1
3.3.8	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
3.4	Repairs and Spares			5
3.4.1	The delivery of faulty equipment to the successful Tenderer premises for repair shall be arranged mutually between Sentech and the successful Tenderer.			1

3.4.2	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
3.4.3	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
3.4.4	End of Sale (EOS) and End of Life (EOL) and End of Support OEM announcements for individual products and software shall be communicated timeously to the Sentech Network Operations Manager indicating the risks and options for replacement.			1
3.4.5	The upgrade path for all equipment (HW & SW), including the impact of the said upgrades on the whole network, must be highlighted.			1
3.5	Support			4
3.5.1	Tenderers must guarantee adequate product support including software upgrade and adequate spares keeping for a minimum period of 9 years after warranty expiry.			1
3.5.2	Respondents shall offer as an option an annual maintenance and support programme for equipment offered.			1
3.5.3	During this period, the supplier shall supply material, equipment, services and maintenance support.			1
3.5.4	The Tenderer shall provide a locally based support and shall be available on request at any time.			1
3.6	Beyond the Guarantee period			9

3.6.1	The bidder shall propose a separate list of maintenance spares to be maintained by Sentech as central buffer stock for use after the end of Guarantee period.			1
3.6.2	The list must include all spares necessary to run the system for at least five years.			1
3.6.3	Maintenance support during performance Guarantee period as per agreed terms & conditions agreed after contract awarding.			1
3.6.4	The bidder shall guarantee that they will support the equipment offered for a minimum period of ten (10) years after delivery.			1
3.6.5	The bidder will supply all relevant hardware & software updates/changes for the minimum ten (10) year period free of charge to Sentech for the contract period.			1
3.6.6	The bidder shall provide a locally based support and shall be available on request at any time.			1
3.6.7	The bidder will be held responsible for all support and guarantees offered to Sentech.			1
3.6.8	A relevant routine maintenance document should be available to assist in preventative maintenance.			1
3.6.9	A recommended list of tools and test equipment shall be provided by the bidder.			1
3.7	Technical demonstration			2
3.7.1	Sentech requires the supplier to show the workings on a currently installed network to verify the capability of the equipment and is within the specifications as per submission. Sentech will indicate the relevant dates for the required demonstration to be done, where required.			1
3.7.2	No extension will be granted for the demonstration date. Sentech reserves the right, in exceptional cases, to extend the demonstration date. Applications must be submitted in writing with a motivation to Sentech Procurement Services at least one week before the deadline as specified.			1
	Total			67

Total Minimum Qualifying Score for Section B is 57 points out of 67 points.

SECTION C: UNLICENSED POINT TO MULTIPOINT EQUIPMENT

Bidders must supply proof of their capability and capacity to do the required work. Bidders will score points as indicated in the table below, based on proof supplied on the minimum criteria.

Proof can be in the form of Datasheets; Product brochure; Installation manuals; Systems manuals; User Manuals; White papers; Diagrams; Tables etc.

	SECTION C			
4	Unlicensed Point to MultiPoint			
4.1	System Requirements-RADIO REQUIREMENTS-Point to Multipoint-Unlicensed Band			3
4.1.1	Point to Multipoint equipment available in ICASA approved unlicensed bands / ISM bands. (Please indicate all other frequencies that are available)			1
4.1.2	The proposed system shall operate in the Time Division Duplexing (TDD) mode.			1
4.1.3	Equipment providing line-of-sight (LOS) & nLOS and NLOS. <i>(Bidder to indicate what mediums are available).</i>			1
4.2	Transmitter characteristics			3
4.2.1	The bidder shall specify maximum output power (Provide Table for the relevant frequencies).			1
4.2.2	The bidder shall specify the Modulation scheme that's available.			1
4.2.3	The bidder to indicate the maximum range as per frequency, modulation and throughput in a table format.			1
4.3	Receiver Characteristics			3
4.3.1	The bidder shall specify the receiver sensitivity for all operating frequencies and at different channel sizes.			1
4.3.2	The bidder shall provide the interference sensitivity graphs, C/I for co- and adjacent channel (1dB) degradation for all capacities.			1
4.3.3	The bidder should indicate availability of interference mitigation technology and the workings thereof.			1
4.4	Power			2
4.4.1	Bidder to indicate the Max power consumption by the base station			1
4.4.2	Bidder to indicate if the equipment is fed by AC/DC from the POE or otherwise.			1
4.5	Capacity			4
4.5.1	Bidder to indicate the capacity per sector			1

4.5.2	Bidder to indicate how the bandwidth can be provisioned.			1
4.5.3	Bidder to indicate maximum users per sector			1
4.5.4	Bidder to indicate the max / min throughput with the applicable max / min users per sector			1
4.6	Security			2
4.6.1	Bidder to indicate the encryption used (Example: AES traffic encryption)			1
4.6.2	Bidder to indicate all levels of equipment access.			1
4.7	Ethernet functionality			5
4.7.1	Bidder to indicate the capabilities of Layer 2, including for example and not limited to, (VLAN, Q-in-Q, Max MTU size, MEF compliance).			1
4.7.2	Bidder to indicate the availability and capabilities of Ethernet QoS.			1
4.7.3	Bidder to provide table with relations of packet size (minimum to maximum), latency and jitter			1
4.7.4	Bidder to indicate the Ethernet port availability (RJ45 & SFP based and the quantity of ports available for both base station and CPE			1
4.7.5	Bidder to indicate if equipment proposed can provide any guaranteed SLA's for services provided.			1
4.8	Antenna			5
4.8.1	Bidder to define the design of the Sector Antennas for example the amount of sectors			1
4.8.2	The Bidder shall state the size and weight of each antenna for both base station and CPE.			1
4.8.3	The Bidder shall state type of antenna for both base station and CPE			1
4.8.4	Bidder to supply gain of antennas with the respective Frequency Band and diameters (indicate in a table/datasheet) for both base station and CPE.			1
4.8.5	The mechanical strength of antenna and antenna fixing system shall not cause damage by winds of 200km/h.			1
4.9	Network Management System-NMS			5

4.9.1	Bidder to indicate the capability of the Element Manager with full capability of "FCAPS".			1
4.9.2	Availability of SNMP v2, v3 and any other protocols			1
4.9.3	Availability of Northbound interface for integration to existing OSS.			1
4.9.4	The bidder should indicate if there is any other propriety tool available for NMS, planning or otherwise			1
4.9.5	The bidder to provide MIB files for parameters for purpose on Northbound interface.			1
4.10	Environmental Conditions, Equipment shall operate without degradation of reliability or specification at:			4
4.10.1	Outdoor temperature of at least –30° to +45° Celsius at relative humidity of up to 100%			1
4.10.2	Outdoor equipment shall be resistant to ingress of water.			1
4.10.3	Outdoor equipment shall be resistant to corrosion and UV rays.			1
4.10.4	Labelling on equipment shall be resistant to the environmental conditions.			1
Section D Total				36

Total Minimum Qualifying Score for Section C is 31 points out of 36 points

20. Scope Of Work

Sentech requires the services from Service Providers in respect of, *inter alia*, to assist with supply, planning, installation, and commissioning of a Point to Multipoint network for Sentech

The completed network would consist of a point to multipoint network that would provide access for Wi-Fi hotspots.

20.1. Response To RFP

20.1.1. The planning and deployment of a Point to multipoint network in the 5/ 6 GHz unlicensed band. This includes:

- 20.1.1.1. Complete detailed plan of the entire network as required. (See attached equipment specifications point 7.3 to adhere to)
- 20.1.1.2. Bill of materials to complete the entire network.
- 20.1.1.3. Provide a resource plan, this must include planning- and deployment resources to complete network deployment within 10 weeks from appointment.

20.1.2. The Bill of Materials Should include the following:

- 20.1.2.1. All Base stations
- 20.1.2.2. All CPE's
- 20.1.2.3. All Cabling
- 20.1.2.4. All Installation Materials required.
 - All exposed cabling must be in trunking/ conduit.
 - All brackets must be earthed to an earth spike or building earthing point.
 - Only chemical anchors accepted for bracket mounting.
 - AC Multiplug with surge protection must be supplied.
- 20.1.2.5. CPE's must be mounted in a 9U 19" wall mounted cabinet with fans.
- 20.1.2.6. Bracket and pole specifications
- 20.1.2.7. Resource requirements
- 20.1.2.8. Power consumption of equipment

(Provide costing in Annexure B)

20.1.3. Network (Deployment, Equipment, etc.) Costing must be based on:

- 20.1.3.1. Equipment Pricing
- 20.1.3.2. Installation Pricing
- 20.1.3.3. Transport Costs (Courier costs, Delivery costs, Travelling)
- 20.1.3.4. Installation Material Costs

(Provide costing in Annexure B)

20.1.4. SMME Contracting (CPE Installations):

- 20.1.4.1. Provide proof that SMME's were contracted as required.
- 20.1.4.2. All SMME contracting must be done from the Supplied SMME list as supplied by Sentech. (Annexure A), SMME's must be based in the province of installation.
- 20.1.4.3. Training of SMME's must be conducted so that they are able to support the network if so required.

20.1.5. The bidder will be responsible for:

- 20.1.5.1. Complete design, documentation, and deployment of the network.
- 20.1.5.2. Weekly updates of the project plan
- 20.1.5.3. Daily updates of installed and commissioned sites and challenges.
- 20.1.5.4. Handover documentation must be sent to Sentech within a week of the completion of sites per site.
- 20.1.5.5. All tests as required by the RFP, and specifications as set out.

20.1.6. The Network must be planned and deployed in the following areas:

Base Stations and Customer premises equipment:

Province	BS Site	Latitude	Longitude	Antenna Height	Number of sectors	Number of CPEs
WC	TYGERBERG	-33.87527778	18.59555556	50	4	28
	PAARL	-33.71416667	18.93972222	50	2	14
	BBI PoP Site (Worcester)	-33.38189	19.26342	15	2	14
	RIVERSDALE	-34.01888889	21.1275	50	2	14
	GEORGE	-33.92722222	22.45083333	50	2	14
	BEAUFORT WEST	-32.25833333	22.50638889	50	3	21
EC	BBI PoP Site (Cookhouse)	-32.44337	25.48261	15	2	14
	BBI PoP Site (Alicedale)	-33.18518	26.04295	15	2	14
	BBI PoP Site (Cradock)	-32.10222	25.36401	15	2	14
	UMTATA	-31.59666667	28.74333333	50	4	28
	SAC 1B Site (Telkom Qunu)	-31.78391	28.61649	30	4	28
KZN	DURBAN NORTH	-29.76444444	31.04	40	4	28
	PIETERMARITZBURG	-29.57972222	30.33027778	50	4	28
	BBI Pop Site (ULUNDI)	-28.45	31.39388889	50	4	28
MP	VOLKSRUST	-27.30916667	29.8875	50	2	14
	BBI PoP Site (Middelburg)	-25.4623	29.28128	15	4	28
	BBI PoP Site (Eskom park {Witbank})	-25.887777	29.21777	15	4	28
	BBI PoP Site (Belfast)	-25.42284	30.03201	15	2	14
LP	BBI PoP Site (Hoedspruit)	-24.210834	30.57238	15	3	21
	BBI PoP Site (Gravelotte)	-23.95725	30.614278	15	2	14

	LOUIS TRICHARDT	-23.00055556	29.75722222	50	3	21
	BBI PoP Site (Musina)	-22.2039	30.0225	15	4	28
	BBI PoP Site (Makopane)	-24.11413	29.01038	15	2	14
	BBI PoP Site (Bela Bela)	-24.53058	28.18017	15	4	28
GP	BBI PoP Site (Rayton)	-25.74238	28.53177	15	3	21
	Pretoria North	-25.742389	28.531778	15	4	28
	HEIDELBERG	-26.48861111	28.34666667	30	3	21
	BBI PoP Site (Oberholzer)	-26.20338	27.23413	15	3	21
NW	BBI PoP Site (Potchefstroom)	-26.71188	27.08544	15	4	28
	BBI PoP Site (Bloemhof)	-27.38324	25.36026	15	3	21
	BBI PoP Site (Lichtenburg)	-26.141	26.17225	15	2	14
	BBI PoP Site (Mafikeng)	-25.51495	25.3822	15	4	28
	BBI PoP Site (Ramatlaba)	-25.390342	25.343359	15	3	21
FS	SPRINGFONTEIN	-30.27055556	25.76888889	50	2	14
NC	BBI PoP Site (Warrenton)	-28.07004	24.51559	15	3	21
	BBI PoP Site (Kimberley)	-28.4412	24.46079	15	4	28
	BBI PoP Site (De Aar)	-30.39037	24.00478	15	4	28
	BBI PoP Site (Noupoort)	-31.1051	24.57018	15	4	28
	BBI PoP Site (Sutherland)	-32.395944	20.66808	15	2	14
	BBI PoP Site (Upington)	-28.27171	21.14197	15	4	28

CPE's to be installed:

The bidder must supply costs to supply and install CPEs in the coverage areas as covered by the above base stations. Co-ordinates will be supplied on order of these installations.

20.2. Annexures

- 20.2.1. Annexure A: Sentech SMME list
- 20.2.2. Annexure B: Pricing Templates to be used.
 - a. Base Station Pricing
 - b. CPE Pricing

- c. NMS Pricing
- d. Training Pricing
- e.

20.3. Specifications

20.3.1. Base station planning: Base stations must be planned to utilize the following specifications:

- 20.3.1.1. Minimum 90 Degree Sectors
- 20.3.1.2. Minimum 64 users (CPE's) per sector.
- 20.3.1.3. Minimum 700 Mbps per sector (Supply maximum upload and download ratio)
- 20.3.1.4. 15 km coverage area at 50 Mbps full duplex (50:50), take note, subscribers must be able to successfully connect at the required speed.
- 20.3.1.5. Network to be able to support both CIR / MIR and BE
- 20.3.1.6. Support VLAN's
- 20.3.1.7. Support Layer-2 and Metro Ethernet
- 20.3.1.8. Support QinQ (Trunk Ports)
- 20.3.1.9. NMS design inclusive of capacities required.
- 20.3.1.10. Base station to support asymmetric traffic configurations if required.

20.3.2. Customer Premises Equipment:

- 20.3.2.1. The CPE's needs to be able to scale between 50 and 200 Mbps.
- 20.3.2.2. Network to be able to support both CIR / MIR and BE
- 20.3.2.3. Support VLAN's
- 20.3.2.4. Support Layer-2 and Metro Ethernet
- 20.3.2.5. Support QinQ (Trunk Ports)
- 20.3.2.6. NMS design inclusive of capacities required.
- 20.3.2.7. Base station to support asymmetric traffic configurations if required.

21. 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).

22. Preference Point allocation – 80/20

Price / Preference	Weighting percentage
Preference:	20%
Price:	80 %
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	10	A valid BBBEE Certificate showing at least 51% black ownership
	5	A valid BBBEE Certificate showing at least 25.1 – 50% black ownership
	3	Black owned company showing at

		least 5 – 25% black ownership
	0	Below 5%
Historically disadvantaged by unfair discrimination on the basis of Gender (women)	8	A valid BBBEE Certificate showing at least 51% women ownership
	4	A valid BBBEE Certificate showing at least 25.1 – 50% women ownership
	2	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	2	A doctor's note confirming disability
Total Points	20	

23. Price Calculation 80/20

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

$$P_s = 80 \left[1 - \frac{(P_t - P_{min})}{P_{min}} \right]$$

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

24. 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 1: 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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Name of Tenderer	Signature	Date