

TENDER DATA

Project title:	Appointment of Additional Suppliers onto the existing Panel, for Supply, Planning, Installation and Support of Point to Multipoint Microwave Equipment to Sentech SOC (Ltd) for a period of Three (3) years.
Bid no:	SENT-013-2022-23

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.

Sentech intends to expand the existing panel of service providers that will supply, plan, install and provide training on Point to Multipoint equipment. Sentech intends to establish a medium-term pre-contract of 3 years agreement with preferred suppliers. Expansion of the panel is based on the planned future requirements where the existing panel members might not have the required capacity to fulfil the requirements and meet the project delivery timelines. Sentech need to ensure that project rollout would be realised at the customer's expected rate.

Please note that the Panel will be divided into 2 Panel Competencies:

1. Licensed Point to Multipoint Equipment

2. Unlicensed Point to Multipoint Equipment

Bidders are requested to indicate which one of the above or the combination of both of the above they would like to participate in.

Sentech will appoint the bidders in each Panel: (Licensed Point to MultiPoint) AND (Unlicensed Point to MultiPoint).

Sentech does not promise successful registered service provider(s) on the panel any quantum of work. The Panel will work on the quotation basis, on an "as and when" required basis.

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 one-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).

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 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. Pre-qualification criteria

With the objective of advancing designated groups, the Bidding condition applicable to this Bid is Minimum Level 4 B-BBEE status (Specify targeted companies (EME / QSE) or minimum B-BBEE status level of contributor) as contemplated in PPPFA regulations, 2017 sub regulation 4(1). A Bidder must provide documentary evidence to support their compliance with this prequalification criteria. A Bidder that fails to meet any pre-qualifying criteria stipulated in this Bid document is an unacceptable Bid.

9. 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) as contemplated in the PPPFA regulations, 2017 sub regulation 9(1);

10. 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.

11. 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?	Yes	No
If yes, specify the sector		
Specify minimum threshold applicable		

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

12. 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.

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>One-Envelop system will be followed for Technical and Price offer</p>	<p>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.</p> <p>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.</p> <p>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 59 points out of 69 points. Bidder who fail to obtain this minimum score will not be evaluated further.</p> <p>Stage 4.1 –Section C: Licensed Point to MultiPoint All Proposals that qualify based on the Stage 3; Section B: General Equipment Requirements will be evaluated against Section C: Licensed Point to MultiPoint. Section C has a minimum qualifying score of 32 points out of 38 points. Bidder who fail to obtain this minimum score will not be evaluated further on this sections requirement. AND / OR</p> <p>Stage 4.2 –Section D: Unlicensed Point to MultiPoint All Proposals that qualify based on the Stage 3; Section B: General Equipment Requirements will be evaluated against Section D: Unlicensed Point to MultiPoint. Section D 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.</p> <p>Stage 6- Risk Assessment Bidders complying with Stages 2, 3 and 4 AND / OR 5 will be evaluated against the Risk Assessment. The evaluation committee reserves the right to conduct a risk assessment on all preliminary and short-listed panellist to establish and assess capacity and risk level to Sentech if a bidder is to be appointed to deliver services.</p> <p>Stage 7- Appointment onto the Panel Post the results of the Risk Assessment; Sentech will appoint the Top 5 scoring bidders in each Panel: (Licensed Point to MultiPoint) AND (Unlicensed Point to MultiPoint).</p> <p>Stage 8 – Contracting and Compliance to terms and conditions of the Panel and this Tender Data. After the award of this tender Sentech will sign a Contract that contains the terms and conditions of the Panel and this Tender Data.</p>
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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

Section A: Mandatory Technical Criteria

Section B: General Equipment Requirements

Section C: Functional Criteria: Applicable to Licensed Point to MultiPoint

Section D: Functional Criteria: Applicable to Unlicensed Point to MultiPoint

Sections A and B are applicable to ALL bidders irrespective of which panel a bidder chooses to participate in.

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 59 points out of 69 points. Bidder who fail to obtain this minimum score will not be evaluated further.

Sections C and D contains Functional Criteria that is applicable to the panel that a bidder chooses to participate in.

Section C contains functional scoring criterion that covers Licensed Point to MultiPoint requirements. Section C has a minimum qualifying score of 32 points out of 38 points. Bidder who fail to obtain this minimum score will not be evaluated further **on this sections requirement.**

Section D contains functional scoring criterion that covers to Unlicensed Point to MultiPoint requirements. Section D 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; Sentech will appoint the Top 5 scoring bidders in each Panel: (Licensed Point to MultiPoint) AND (Unlicensed Point to MultiPoint).

EVALUATION CRITERIA

PLEASE TICK ✓ THE TABLE BELOW TO INDICATE WHICH PANEL or PANELS YOU WILL BID TO PARTICIPATE IN

SECTION	PANELS	PLEASE TICK ✓
SECTION A	Mandatory Technical Criteria	COMPULSORY FOR ALL BIDDERS IRRESPECTIVE OF WHICH PANEL A BIDDER WILL CHOOSE BELOW
SECTION B	General Requirements	COMPULSORY FOR ALL BIDDERS IRRESPECTIVE OF WHICH PANEL A BIDDER WILL
SECTION C	Licensed Point to Multipoint Equipment	
SECTION D	Unlicensed Point to Multipoint Equipment	

Responses to Section A & B is compulsory for ALL BIDDERS irrespective of which panel a bidder will tick in the table above

Section C & D contains specific equipment Functional Criteria that is applicable to the panel that a bidder would have chosen above. Bidders who indicate their willingness to participate in a panel must respond to the respective Functional Criteria.

18.1 Mandatory Eligibility Criteria

SECTION A: MANDATORY TECHNICAL CRITERIA – APPLICABLE TO ALL BIDDERS

Mandatory Eligibility Criteria	Compliant (Indicate Yes or No)	Reference documentation supplied (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, Contactable reference or email 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 on awarding of the tender. ICASA type approval of PtMP equipment must be available for License and 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.		
4. Once bidders has been successfully appointed as part of the panel, 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 within 5 years and end of support/ Life in the next 10 years.		Provide Statement of commitment on your company letterhead
6. Bidder to commit to train QSEs / EMEs as per list to be provided by SENTECH and utilise same QSEs / EMEs for installation purposes.		Provide Statement of commitment on your company letterhead

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 – APPLICABLE TO ALL BIDDERS

Bidders must supply proof of their capability and capacity to do the required work and be included on the Panel of Pre-qualified service providers. 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			6
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 6-8 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	Confirm standard warrantee period of minimum 12 months and provide warrantee extension options.			1
1.6	All documentation, system workings shall be in English.			1
1.7	Reliability			3

1.7.1	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
1.7.2	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
1.7.3	All equipment shall be subjected to a factory burn-in process. The bidder shall supply detail of this.			1
1.8	Quality Assurance			2
1.8.1	The bidder shall provide evidence that any work and services that they render conforms to quality management standard bodies such as "ISO 9001" or equivalent".		Provide proof or roadmap for compliance.	1
1.8.2	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.			1
1.9	Health, Safety, and Generic Emissions			3
1.9.1	Equipment shall comply with relevant and applicable ETSI standards.			1
1.9.2	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
1.9.3	OHS Act processes & procedures (Example Safety files) to be adhered to during installations if required.			1
1.10	Installation			6
1.10.1	The bidder shall ensure that all his employees including bidder's sub-contractors comply with the Occupational Health and Safety Act.			1

1.10.2	The bidder shall identify any risks/unsafe working conditions and communicate to the relevant Health & Safety officer and then communicate to Sentech personnel.			1
1.10.3	Bidder's employees including subcontractors shall report all incidents/accidents to the responsible Health & Safety Representative.			1
1.10.4	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
1.10.5	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
1.10.6	The bidder shall be prepared to provide skills transfer to Sentech's employees during onsite installation and commissioning.			1
1.11	Professional Services			7
1.11.1	Bidder should indicate available professional services available for example, Radio planning & design, Interference planning.			1
1.11.2	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
1.11.3	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
1.11.4	The bidders planning design may be used by Sentech internally for further analysis on Sentech's planning tool.			2
1.11.5	The planning design by the bidder shall comply with the required service level agreement as specified.			2

2	BIDDER REQUIREMENTS	SUPPORTING		
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			69

Total Minimum Qualifying Score for Section B is 59 points out of 69 points.

**SECTION C: PANEL EQUIREMENTS – APPLICABLE TO LICENSED POINT TO
MULTIPOINT EQUIPMENT**

Bidders must supply proof of their capability and capacity to do the required work and be included on the Panel of Pre-qualified service providers. 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			
	Licensed Point to MultiPoint			
2	RADIO REQUIREMENTS-Point to Multipoint- Licensed Band			
2.1	System Requirements			3
2.1.1	Point to Multipoint equipment available in 700MHz, 800MHz, 2.6GHz, 3.5GHz, 10.5 GHz, 26Ghz & 28 GHz. (Please indicate if other frequencies are available with related information stipulated below).			1
2.1.2	The proposed system shall operate in the Frequency Division Duplex (FDD) mode.			1
2.1.3	Equipment requested will work with line-of-sight (LOS)			1
2.2	Transmitter characteristics			5
2.2.1	The bidder shall specify maximum output power (Provide Table for all frequency bands under 2.1.1). All other available equipment should also be in appropriate table format.			1
2.2.2	The bidder shall specify the Modulation scheme that's available.			1
2.2.3	The bidder shall supply frequency spectrum masks for radios in all frequency bands under 2.1.1 associated with the following channel bandwidths (1.75, 3.5, 7, 14, 28, 56 and 112 MHz or any higher channel bandwidth).			1
2.2.4	Availability of Adaptive Coding and Modulation (ACM) on the air interface. See 2.2.2			1
2.2.5	The bidder to indicate the maximum range as per frequency and modulation in a table format.			1
2.3	Receiver Characteristics			4
2.3.1	The bidder shall specify the receiver sensitivity for all operating frequencies, modulation schemes at different channel sizes. Bidder to provide table showing the relationship between net throughput, modulation scheme and distance.			1
2.3.2	The bidder should indicate RF Noise filters characteristics			1
2.3.3	Bidder to indicate Carrier-to-Interference Ratio (C/I)			1

2.3.4	It shall be possible to operate in co-channel cross polar mode without degradation of specifications.			1
2.4	Power			2
2.4.1	Bidder to indicate the Max power consumption by the base station.			1
2.4.2	Bidder to indicate if the equipment is fed by AC/DC from the POE or otherwise.			1
2.5	Capacity			4
2.5.1	Bidder to indicate the capacity per sector			1
2.5.2	Bidder to indicate how the bandwidth can be provisioned			1
2.5.3	Bidder to indicate maximum users per sector as per frequency and modulation in a table format.			1
2.5.4	Bidder to indicate the max / min throughput with the applicable max / min users per sector			1
2.6	Security			2
2.6.1	Bidder to indicate the encryption used (Example: AES traffic encryption)			1
2.6.2	Bidder to indicate all levels of equipment access			1
2.7	Ethernet functionality			4
2.7.1	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
2.7.2	Bidder to indicate the availability and capabilities of Ethernet QoS.			1
2.7.3	Bidder to provide table with relations of packet size (minimum to maximum), latency and jitter			1
2.7.4	Bidder to indicate the Ethernet port availability (RJ45 & SFP based and the quantity of ports available for both base station and CPE's.			1
2.8	Antenna			5
2.8.1	Bidder to define the design of the Sector Antennas, for example the sector configuration.			1
2.8.2	The Bidder shall state the size and weight of each antenna for both base station and CPE's.			1

2.8.4	The Bidder shall state type of antenna for both base station and CPE's.			1
2.8.5	Bidder to supply gain of antennas with the respective Frequency Band and diameters (indicate in a table/datasheet) for both base station and CPE's.			1
2.8.6	The mechanical strength of antenna and antenna fixing system shall not be damaged by winds of 200km/h.			1
2.9	Network Management System-NMS			5
2.9.1	Bidder to indicate the capability of the Element Manager with full capability of "FCAPS"			1
2.9.2	Availability of SNMP v2, v3 and any other protocols			1
2.9.3	Availability of Northbound interface for integration to existing OSS.			1
2.9.4	The bidder should indicate if there is any other propriety tool available for NMS, planning or otherwise.			1
2.9.5	The bidder to provide MIB files for parameters for purpose on Northbound interface.			1
2.10	Environmental Conditions, Equipment shall operate without degradation of reliability or specification at:			4
2.10.1	Outdoor temperature of at least -30° to +45° Celsius at relative humidity of up to 100%.			1
2.10.2	Outdoor equipment shall be resistant to ingress of water.			1
1.10.4	Outdoor equipment shall be resistant to corrosion and UV rays.			1
1.10.5	Labelling on equipment shall be resistant to the environmental conditions.			1
	Section C Total			38

Total Minimum Qualifying Score for Section C is 32 points out of 38 points

**SECTION D: PANEL EQUIREMENTS – APPLICABLE TO UNLICENSED POINT TO
MULTIPOINT EQUIPMENT**

Bidders must supply proof of their capability and capacity to do the required work and be included on the Panel of Pre-qualified service providers. 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 D			
3	Unlicensed Point to MultiPoint			
3.1	System Requirements-RADIO REQUIREMENTS-Point to Multipoint-Unlicensed Band			3
3.1.1	Point to Multipoint equipment available in ICASA approved unlicensed bands / ISM bands. (Please indicate all other frequencies that are available)			1
3.1.2	The proposed system shall operate in the Time Division Duplexing (TDD) mode.			1
3.1.3	Equipment providing line-of-sight (LOS) & nLOS and NLOS. <i>(Bidder to indicate what mediums are available).</i>			1
3.2	Transmitter characteristics			3
3.2.1	The bidder shall specify maximum output power (Provide Table for the relevant frequencies).			1
3.2.2	The bidder shall specify the Modulation scheme that's available.			1
3.2.3	The bidder to indicate the maximum range as per frequency, modulation and throughput in a table format.			1
3.3	Receiver Characteristics			3
3.3.1	The bidder shall specify the receiver sensitivity for all operating frequencies and at different channel sizes.			1
3.3.2	The bidder shall provide the interference sensitivity graphs, C/I for co- and adjacent channel (1dB) degradation for all capacities.			1
3.3.3	The bidder should indicate availability of interference mitigation technology and the workings thereof.			1
3.4	Power			2
3.4.1	Bidder to indicate the Max power consumption by the base station			1
3.4.2	Bidder to indicate if the equipment is fed by AC/DC from the POE or otherwise.			1
3.5	Capacity			4
3.5.1	Bidder to indicate the capacity per sector			1

3.5.2	Bidder to indicate how the bandwidth can be provisioned.			1
3.5.3	Bidder to indicate maximum users per sector			1
3.5.4	Bidder to indicate the max / min throughput with the applicable max / min users per sector			1
3.6	Security			2
3.6.1	Bidder to indicate the encryption used (Example: AES traffic encryption)			1
3.6.2	Bidder to indicate all levels of equipment access.			1
3.7	Ethernet functionality			5
3.7.1	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
3.7.2	Bidder to indicate the availability and capabilities of Ethernet QoS.			1
3.7.3	Bidder to provide table with relations of packet size (minimum to maximum), latency and jitter			1
3.7.4	Bidder to indicate the Ethernet port availability (RJ45 & SFP based and the quantity of ports available for both base station and CPE			1
3.7.5	Bidder to indicate if equipment proposed can provide any guaranteed SLA's for services provided.			1
3.8	Antenna			5
3.8.1	Bidder to define the design of the Sector Antennas for example the amount of sectors			1
3.8.2	The Bidder shall state the size and weight of each antenna for both base station and CPE.			1
3.8.4	The Bidder shall state type of antenna for both base station and CPE			1
3.8.5	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
3.8.6	The mechanical strength of antenna and antenna fixing system shall not cause damage by winds of 200km/h.			1
2.9	Network Management System-NMS			5

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

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

18. 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).

19. Preference Point allocation – 80/20

Price / Preference	Weighting percentage
Preference:	20%
Price:	80 %
Total must equal:	100%

80/20-point scoring system			
Preference: 20 Points		Price: 80 points	
Other: B-BBEE Status Level Contributor			
B-BBEE Level	Number of Points	Price:	100 % (of 80)
1	20	Quality / Functionality:	0 % (of 80)
2	18		
3	14		
4	12		
5	8		
6	6		
7	4		
8	2		
Non-Compliant contributor	0		
		Total must equal:	100% (of 80)

20. Price Calculation 80/20

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

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

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 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							

Customer		Service Provided	Contact Person	Contact no.	tel.	Contractual commencement date	Contractual completion date
5							

Name of Tenderer	Signature	Date