

APPOINTMENT OF A SERVICE PROVIDER TO UPGRADE EXISTING PORTABLE SPECTRUM ANALYSERS TO REAL-TIME SPECTRUM ANALYSIS (RTSA) CAPABILITY ON AN 80/20 PPPFA 2000, PREFERENTIAL PROCUREMENT REGULATION: 2022

1 Purpose of the Submission

1.1 The purpose of this submission is to approve the publication of an open bid to appoint a qualified service provider to upgrade ICASA's existing portable spectrum analysers with real-time spectrum analysis (RTSA) capability.

1.2 The objective of the upgrade is to strengthen ICASA's operational capacity in monitoring, detecting, and managing the radio frequency spectrum between 9 kHz and 54 GHz, thereby enhancing regulatory enforcement and spectrum compliance functions.

2 Background

2.1 ICASA is mandated to ensure efficient and interference-free use of the radio frequency spectrum. Field engineers require portable spectrum analysers with real-time spectrum analysis functionality to detect and diagnose signal anomalies such as spurious emissions, intermodulation, or carrier drift.

2.2 Following a needs analysis conducted by the Regions Division, it was determined that the Authority's existing portable spectrum analysers must be upgraded to meet operational requirements for real-time spectrum monitoring, particularly in higher microwave frequency bands.

2.3 ICASA intends to source, through an open and competitive bidding process, a qualified service provider to perform software and hardware upgrades that will ensure the devices operate effectively in accordance with recognised engineering and regulatory standards.

3 Scope of work

The appointed service provider will be required to:

3.1 Supply and install compatible software and hardware upgrades to enable real-time spectrum analysis functionality from 9 kHz to 54 GHz.

3.2 Ensure all upgrades are fully functional, tested, calibrated, and compliant with the specifications contained in Annexure A, with performance verified prior to acceptance.

3.3 Provide all necessary accessories, documentation, calibration certificates, and operational manuals relevant to the upgraded equipment.

3.4 Deliver the upgraded units according to an agreed-upon project implementation plan with measurable milestones and completion dates.

3.5 Provide user familiarisation or operational guidance to ICASA officials upon completion, where applicable.

4 Warranty and Support

4.1 The upgraded equipment must carry a minimum two-year warranty covering defects or failures related to the supplied components or workmanship.

4.2 The service provider must provide software updates and remote technical support during the two-year period.

4.3 All supplied components must conform to applicable standards and certification requirements for spectrum analysis instrumentation and be supported by OEM.

5 Delivery Period

5.1 All upgrades must be completed and commissioned within the timeframe agreed upon in the Service Level Agreement (SLA).

5.2 ICASA will not be liable for any costs arising from the supplier's delay or failure to deliver within the agreed schedule

7 Briefing Session

No compulsory briefing session will be held. Bidders may submit written queries during the advertising period in line with ICASA's SCM communication protocol.

8 Evaluation of the Bid

The bid will be advertised on the National Treasury eTender Portal and ICASA's website for a minimum of 21 calendar days, in accordance with the Preferential Procurement Regulations, 2022, applying the 80/20 preference point system.

Evaluation Stages

1. Stage 1 – Mandatory Requirements
2. Stage 2 – Functionality (Technical Evaluation)
3. Stage 3 – Price and Specific Goals (80/20 principle)

Only bidders who meet all mandatory requirements will proceed to the functionality evaluation stage.

Stage 1: Mandatory Requirements (Simplified)

Requirement	Evidence Required	Outcome
1. Legal and Technical Authorisation	A formal letter authorising the bidder to supply mobile direction-finding units, either from the OEM or as a certified distributor.	Compliant / non-compliant
2. Warranty Compliance	Warranty certificates confirmation from OEM/distributor showing the bidder can provide Warranties and support.	Compliant / non-compliant

Warranty Minimum Period

The supplier shall provide a minimum warranty period of three years from the date of commissioning and delivery acceptance.

During the warranty period, the supplier must:

- Repair or replace defective components at no additional cost.
- Cover parts, labour, and associated travel costs.

- Ensure that replacement items are new or manufacturer-approved equivalents.

Scope of Cover

The warranty shall cover:

- Manufacturing defects
- Faulty workmanship
- Software or firmware defects (where applicable)
- Failure under normal operating conditions

The warranty shall not exclude:

- Installation-related defects caused by the supplier
- Integration failures with specified compatible systems
- Recurring faults after previous repairs

Exclusions may include:

- User misuse or unauthorized modification
- Damage caused by accidents, fire, flooding, or power surges outside specification
- Consumable items unless defective upon delivery

Support Obligations

The supplier shall provide technical and operational support during the warranty period, including:

Response Times

- Major faults: response within 2 business day
- Minor faults: response within 4 business days

Support Services

- Telephone and email support during business hours
- Remote troubleshooting support
- On-site support where remote resolution is not possible
- Software updates and security patches (if applicable)

Maintenance

- Preventive maintenance in accordance with manufacturer recommendations
- Provision of spare parts availability for 5 years
- Escalation procedures for unresolved issues

Notes for BEC:

- Only bidders meeting both mandatory requirements will proceed to functionality evaluation.
- Mandatory requirements are pass/fail, not scored.

Stage 2: Functionality Evaluation

Evaluation Criteria	Weight	Evidence Required	Scoring Description
1. Technical Conformity – Hardware & Software Compliance Bidder demonstrates that the upgrade fully meets the technical specifications in Annexure A.	50	Two documents required: 1. Datasheet for each upgraded device showing hardware and software specifications. 2. Certification from OEM confirming compliance with specifications.	5 – Fully compliant with all specifications; all three documents provided. 1 – non-compliant with all specifications.
2. Bidder must provide a clear, and practical training designed for 10 Technical officers.	10	Training plan for 10 Technical officers which shall cover the functionality of the units with practical hands-on sessions. The training shall be done on the actual units being supplied under this procurement process. Training plan must contain the following: 1. Training sessions must be conducted in Gauteng Province. 2. Training must be presented for a duration of three days. 3. Training schedule must clearly provide training objectives, with specific outcomes.	5 – Detailed training plan provided with all three stated requirements. 1-Training plan provided did not cover all three stated requirements.
3. Relevant Experience and References Bidder demonstrates relevant experience	40	1. Verifiable reference letter on official letterhead for each relevant project, including: <ul style="list-style-type: none"> • Scope of work • Dates of service 	5-four or more reference letters: 4-three reference letters provided 3-two reference letters provided.

Evaluation Criteria	Weight	Evidence Required	Scoring Description
in supplying spectrum analysers, supported by verifiable references.		<ul style="list-style-type: none"> Contactable client details 	2-one reference letter – 1 –no reference letter provided.

Total Maximum Points: 100
Minimum Qualifying Score: 80 / 100

Stage 3: Price and Specific Goals (80/20 Preference Point System)

- Evaluation will be conducted in accordance with the PPPFA (Act 5 of 2000) and the Preferential Procurement Regulations, 2022.
- The 80/20 preference system will apply, where:
 - Price = 80 points
 - Specific Goals = 20 points (e.g., promotion of local participation, BBBEE level, enterprise development, and socio-economic advancement).

Spectrum Analyser 54 GHz Specification with Real Time Analyser

The Independent Communications Authority of South Africa (hereinafter referred to as "the Authority") intends to procure hardware and software upgrades for the inclusion of real time spectrum analyser (RTSA) into the nine (9) existing CEYEAR model 4024L, portable spectrum analysers. Ideally, the frequency range should be of at least 9kHz-54 GHz (gigahertz).

1. BACKGROUND

The Authority has currently established regional office in all nine provinces. The need exists to equip all 9 provinces with Real Time Spectrum Analyser.

2. SCOPE OF WORK

The scope of this tender is limited to the upgrade of software and hardware of nine (9) existing Spectrum Analysers, for the inclusion of the Real Time Spectrum Analyser facility, for the Authority in Centurion. The upgrade must include all accessories, measurement personalities, associated options and or firmware to provide a complete solution without the use of external mixers to the range of at least 54 GHz, if not better, for the efficient use of the Real Time Spectrum Analyser option.

3. EQUIPMENT REQUIRED

This section defines the equipment and number of units as well as functionality required of each unit to fulfil the Authority's tender requirements as set out in this document.

3.1. Service and Calibration

- Each instrument supplied shall be supplied with a Calibration certificate from ISO/IEC 17025 Accredited laboratory.
- An indication of the availability of spares and service life offered should be indicated in the bid.
- Each Unit shall carry a minimum 2 Year factory warranty

4. Installation, Training and Support

- 4.1. The supplier will be required to provide a complete solution in a single bid.
- 4.2. The supplier will be responsible for the satisfactory testing and commissioning of all equipment and software provided under the contract.
- 4.3. Training at a centralised location for 10 persons on the use of and application of the complete Spectrum analyser unit and associated real time spectrum analysis software.
- 4.4. After-sales support should be provided for and be clearly indicated in the bid document.

General technical specifications:

		COMPLY	
1. Real-Time Spectrum Analysis-MAIN REQUIREMENT		YES	NO
	1. Enables continuous, gap-free signal monitoring—critical for identifying short-duration or transient emissions in congested bands and ensuring regulatory compliance.		
	2. RTSA bandwidth to accommodate a minimum of 120 MHz bandwidth, if not better		
		COMPLY	
2. Latest Software Platform		YES	NO
	Supplied with an advanced software suite optimized for spectrum monitoring, occupancy analysis, signal classification, and interference detection.		
3. Upgraded Processing Architecture		COMPLY	
		YES	NO
	Hardware must be equipped with a faster microprocessor, ensuring real-time responsiveness, quicker data handling, and seamless remote operation where required		
4. Modernized Hardware Platform		COMPLY	
		YES	NO
	The upgrade must include internal hardware, where long-term reliability is improved, system stability, and readiness for future feature expansions.		
5. Touchscreen User Interface		COMPLY	
		YES	NO
	A high-resolution touch display provides enhanced field usability, particularly valuable in mobile or field enforcement scenarios. Stylus to be included with the hardware and software upgrade for touchscreen usage.		

6.	Low-Frequency Adapter Included	COMPLY	
		YES	NO
	Hardware and Software upgrade must ensure that interconnecting adapters are supplied to ensure continued support for lower frequency monitoring tasks, including VHF/UHF band compliance and public safety spectrum oversight		
7.	Cost-Effective Upgrade Path	COMPLY	
		YES	NO
	The upgrade must offer guaranteed significant performance improvements and new capabilities at a considerably lower cost than procuring a new unit, while minimizing operational disruption		
8.	RF Input requirements	COMPLY	
		YES	NO
	Input impedance: 50Ω nominal		
	Coaxial Connector type: N-type and SMA (2.4mm) to 54 GHz		
	RF input adaptors to be included, with two (2) of each connector/adaptor being supplied. These adaptors should be inter-connecting, where possible.		
9.	Other Specifications	COMPLY	
		YES	NO
	Included in this tender must be a sturdy carrying case and standard South African three-way power cord with plug.		
	Back-pack soft carry case to be included.		
	Drop in battery receptacle-220 Volt.		
	Two batteries is a mandatory requirement.		
	Included must be the associated mains charger.		
	Automotive cigarette lighter adaptor to operate @ 12V DC.		
	Included must be the associated PC based software capable of storing and displaying traces.		
	Software should be compatible with latest Windows© operating system.		
	Serial interface cable shall be included		

5. Testing of the equipment

This is only applicable to the successful service provider, i.e. final acceptance: Testing must be done after the supply of nine (9) portable spectrum analysers, which can have a real time spectrum analyser (RTSA) option. Final acceptance will include testing functionality of the devices and will be done in accordance with the standard test procedures and representatives of ICASA and the bidder will sign all acceptance forms.

ICASA Delivery Details

Equipment to be delivered to ICASA REGIONS & CA DIVISION

Attention : Sphesihle Zungu, Division, Assistant

Tel +27 12 568 3803

350 Witch-hazel Avenue; Eco Point Office Park

Eco Park, Centurion