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Title: **VHF/ UHF Equipment Repair
Services Scope of Work**

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Applicability **ET**

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1 INTRODUCTION

A repair contract is required for APRISA links and interface cards, Trio Repeaters and Remotes, Tait TB8100, TM8250, TM8115, TP8100, TM9300 AND TP9300 that are deployed in the Eskom Telecomms VHF/ UHF Network. The OEM's for the equipment are 4RF, Schneider Electric and TAIT respectively. The Ultra High Frequency (UHF) and Very High Frequency (VHF) network is used for the Supervisory Control and Data Acquisition (SCADA) system and for Operational Voice. The repair service is required on an adhoc basis for a period of three of years.

2 SUPPORTING CLAUSES

2.1 Scope

2.1.1 Purpose

The purpose of this document is to specify the scope of work for repair of VHF and UHF equipment that is deployed in the Eskom Telecoms network. This document will be used to guide the service provider's expectations as to the scope requirements for the repairs.

2.1.2 Applicability

This document shall apply throughout Eskom Holdings Limited, its divisions, subsidiaries and entities wherein Eskom has a controlling interest.

2.2 Normative/Informative References

Parties using this document shall apply the most recent edition of the documents listed below:

2.2.1 Normative

- ISO 9001:2000 Quality Management Systems

2.2.2 Informative

- None

2.3 Definitions

Definition	Explanation
Eskom Telecommunications	A business unit in Eskom Holdings.
Service Provider	External party responsible for the repair of the hardware equipment that is described in the Scope of work
TB8100, TM8250, TM8115, TP8100, TM9300, TP9300	Tait VHF/ UHF equipment
TRIO	Schneider Electric Equipment VHF/ UHF equipment

Definition	Explanation
APRISA	4RF UHF equipment

2.4 Abbreviations

Abbreviation	Explanation
ET	Eskom Telecommunications
ET STORES	Eskom Telecommunications' warehouse in Germiston.
OEM	Original Equipment Manufacturer
RSA	Republic of South Africa
VHF	Very High Frequency
UHF	Ultra High Frequency
SCADA	Supervisory Control and Data Acquisition

2.5 Roles and Responsibilities

As defined in the document content.

2.6 Implementation Date

The implementation date is the date of the authorising signature.

2.7 Process for monitoring

Implementation of the scope will be monitored through the contract process.

2.8 Related / Supporting Documents

N/A

3 DOCUMENT CONTENT

3.1 Scope of Work

3.1.1 The service provider is expected to quote on the repair of equipment on the list under 3.3 Equipment List.

3.1.2 The service provider is also expected to return the repaired units to the warehouse Eskom Telecommunications' warehouse in Germiston.

3.1.3 The service provider shall only repair the equipment once an order has been created by Eskom. The repairs shall be on an as and when required basis for a period of 3 years.

3.2 Equipment Repair Requirements

3.2.1 The tenderer must be an accredited repairer with the OEM, repaired equipment must meet OEM specifications.

3.2.2 Repaired equipment shall carry a warranty period of at least 12 months. The warranty period shall start from the day ET stores dispatches the equipment for redeployment in the Eskom network. The ET Stores will keep track of the dispatch dates and that will be made available upon request.

3.2.3 The items must be tracked by serial numbers. The same unit that is sent for repair shall be sent back to Eskom whether repairable or not.

3.2.4 All major part replacements shall be authorised by Eskom.

3.2.5 A fault report on repaired or irreparable items shall contain, at least, the following information,

- a) The serial number of the device.
- b) Fault description (which module is faulty).
- c) Where possible to identify the cause for the failure.

3.2.6 All equipment shall be repaired in RSA.

3.2.7 The preferred response and lead times by the service provider are as follows,

SLA	Response Time	Lead Time
	1 week	2 weeks

3.2.8 State your guaranteed turnaround time.

3.3 Equipment List

Quoted on the repair of each item.

Material	Description	Quantity	Price
	TAIT TB8100		
0229436	REPEATER:TB8100 VHF BASE STATION MAN	1	N/A
0244135	MODULE,GENERIC:REPEATER VHF TX	1	N/A
0244136	MODULE,GENERIC:REPEATER VHF RX	1	N/A
0244137	MODULE,GENERIC:REPEATER UHF TX	1	N/A
0244139	POWER SUPPLY,GENERIC:REPEATER 48V	1	N/A
0247225	MODULE,GENERIC:REPEATER UHF RX	1	N/A
0229446	REPEATER:TB8100 UHF BASE STATION MAN	1	N/A
0254147	REPEATER:TB8100 UHF BASE STATION MAN	1	N/A
	TAIT TB8100 STRIP AND QUOTE	1	
	TAIT PMU REPAIR/SPEC CHECK	1	
	TAIT FRONT PANEL REPAIR/SPARE	1	
	TB8100 RECEIVER REPAIR/SPEC CHECK	1	
	TB8100 TRANSMITTER REPAIR/SPEC CHECK	1	
	TAIT (TM8250/TM8255/TM9300)		
	TAIT TMXXXX STRIP AND QUOTE	1	
	RECEIVER REPAIR/SPEC CHECK	1	
	TRANSMITTER REPAIR/SPEC CHECK	1	
	CONTROL HEAD REPAIR/SPEC CHECK	1	
	CONTROL HEAD REPLACEMENT	1	

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	CONTROL LEAD REPLACEMENT	1	
	POWER LEAD (REPLACEMENT)	1	
	MICROPHONE REPLACEMENT	1	
	LCD DISPLAY REPLACEMENT	1	
	APRISA		
228178	UNIT;APRISA SE400 TX400,25 RX462.675	1	N/A
228193	MODULE;CIC008,APRISA SE 400 INTERFACE	1	N/A
229353	REPEATER;XE400 25 48,APRISA UHF 450/470	1	N/A
229354	MODULE;CIC004,APRISA INTERFACE	1	N/A
229355	MODULE;CIC005,APRISA INTERFACE	1	N/A
229357	MODULE;CIC006,APRISA SE 400 INTERFACE	1	N/A
229358	REPEATER;XE1400 500 48,APRISA VHF 1350/1	1	N/A
229359	MODULE;APRISA DFX0,XE1 MUX INTERFACE	1	N/A
229360	MODULE;APRISA Q4EM XE1 4 MUX I/FACE	1	N/A
229361	MODULE;APRISA XE1 QJET INTERFACE	1	N/A
229362	MODULE;APRISA XE1 QV24 V.24/RS232 I/FACE	1	N/A
229381	MODULE;CIC002,APRISA SE400	1	N/A
229384	DUPLEXOR;APRISA RF TX462.325/RX452.325	1	N/A
229386	MODULE;APRISA DFXS ,XE1 INTERFACE	1	N/A
230638	MODULE;APRISA INTERFACE ,XE1 HSS V35	1	N/A
231240	POWER SUPPLY;APRISA 12/24/48V	1	N/A
232441	MODULE;APRISA RX TX	1	N/A
	FAN REPAIR/SPARE	1	

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	APRISA LINK STRIP AND QUOTE	1	
	APRISA DUPLEXER RE-ALIGN	1	
	TRIO REPEATER		
229385	TERMINAL;ER450-63E01-DH,TRIO RADIO END	1	N/A
229430	REPEATER;EB 450 63E01-D00,TRIO UHF BASE	1	N/A
229432	UNIT:TRIO MULTIPLEXER ;LV ;110/240VDC	1	N/A
232298	REPEATER;TRIO 48VDC WITHOUT DUPLEXOR	1	N/A
232299	REPEATER;TRIO TX RX MODULE ONLY	1	N/A
596182	MODEM:TERMINAL; QR450; TRIO; ETHERNET	1	N/A
	TRIO REPEATER STRIP AND QUOTE, INCLUDING TUNING THE DUPLEXER	1	
	TRIO TRANSCEIVER REPAIR/RE-ALIGN/SPEC CHECK	1	
	ER450 INITIAL FAULT FINDING	1	
	TRIO ER450 TRANSCEIVER REPAIR/SPEC CHECK	1	
	ADDITIONAL SERVICES		
	RETURN OF REPAIRED EQUIPMENT TO ET STORES	1	
	ADDITIONAL VHF/UHF EQUIPMENT REPAIR SERVICES (ITEMS NOT COVERED BY QUOTED RATES ABOVE)	As per quote	Approved Quotation

3.4 General Document Guideline

3.4.1 Keywords

VHF, UHF, SCADA, TAIT, Repeater, APRISA, TRIO, OEM

3.4.2 Audience

This document will be issued as a scope of work for the enquiry.

3.4.3 Assumptions and restrictions

It is assumed that readers are familiar with the technology concepts discussed in this document.

4 AUTHORISATION

Name	Designation
Alison Maseko	ET Senior Manager

5 REVISIONS

Date	Rev.	Remarks
January 2017	1	Scope of Work required for repair contract enquiry.
August 2021	2	Revised Scope of Work for new repair contract enquiry.

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