INVITATION TO BID

AIR TRAFFIC AND NAVIGATION SERVICES SOC LTD
REPUBLIC OF SOUTH AFRICA

REQUEST FOR PROPOSALS: ATNS/TPQ/RPF048/23.24/ AMHS-AFTN REPLACEMENT

APPOINTMENT OF A SERVICE PROVIDER FOR THE SUPPLY, DELIVERY, INSTALLATION AND COMMISSIONING OF AN ATS MESSAGE SWITCHING SYSTEM (AMSS) CONSISTING OF AN AERONAUTICAL MESSAGE HANDLING SYSTEM (AMHS) AND AN AERONAUTICAL FIXED TELECOMMUNICATION NETWORK (AFTN), WITH THE MAIN SYSTEM TO BE DEPLOYED AT THE O. R. TAMBO INTERNATIONAL AIRPORT (JOHANNESBURG). THE PROJECT WILL FURTHERMORE ESTABLISH A DISASTER RECOVERY SYSTEM (TO BE DEPLOYED IN THE FAOR SSS BUILDING) AND A TRAINING AND EVALUATION SYSTEM AT THE ATNS ATA (ATNS AVIATION TRAINING ACADEMY).

VOLUME 1 A

APPENDIX B – ELEMENT WEIGHTINGS

FEBRUARY 2024

APPENDIX A – ELEMENT WEIGHTINGS

ELEMENT No.	Paragraph	ELEMENT Name	Weighting (%)
		Volume 2 – TECHNICAL SPECIFICATIONS	**100,0%**
	1	GENERAL INSTRUCTIONS TO TENDERERS	
	2	OVERVIEW	
	3	REFERENCES	
	4	INTRODUCTION	
	4,1	Project Deliverables	
	5	GENERAL SPECIFICATIONS	
	5,1	System Clients	0.30%
	5.1.1	Domestic ATSU Clients	
	5.1.2	Domestic Other Clients	
	5.1.3	International Clients	
	5.1.4	ATNS Systems	
	5.1.5	ATNS Future Systems	
	5,2	IT Requirements	1.70%
	6	TECHNICAL HARDWARE SPECIFICATIONS	
	6,1	SYSTEM HARDWARE COMPONENTS	
	6.1.1	AFTN/AMHS Main servers	1.00%
	6.1.2	AFTN/AMHS D&R servers	1.00%
	6.1.3	AFTN/AMHS Operator Workstations	1.40%
	6.1.4	AFTN/AMHS User Workstations/Terminal	1.40%
	6.1.5	AFTN/AMHS Training and Evaluation System	0.70%
	6.1.6	Backup SAN (Storage Area Network)	0.70%
	6.1.7	NTP Server	0.30%
	6.1.8	Network	1.40%
	6.1.9	Serial-to-Ethernet Device	0.30%
	6,2	SYSTEM HARDWARE SPECIFICATIONS	
	6.2.1	Server Specifications	1.70%
	6.2.2	Workstation Computer Specifications	2.00%
	6.2.3	Workstation Monitor Screen Specifications	2.10%
	6,3	Cabinets	1.70%
	6,4	Performance and sizing	2.70%
	6,5	Message Queue	1.40%
	6,6	Redundant System Operation	1.40%
	7	MAIN SYSTEM TECHNICAL SOFTWARE SPECIFICATIONS	
	7,1	SYSTEM SOFTWARE COMPONENTS	
	7.1.1	Operating Software	1.00%
	7.1.2	Application Software	0.30%
	7.1.3	Software Licenses	0.30%
	7.1.4	Databases	1.70%
	7,2	System Management	
	7.2.1	System Management Principles	1.40%
	7.2.2	User Interfaces	3.10%
	7.2.3	Main System Configuration	0.30%

	7.2.4	System Monitoring	3.10%
	7.2.5	Fault and Error Handling	3.40%
	7.2.6	Diagnosis and Statistics	3.10%
	7.2.7	Security Management	2.40%
	7,3	ATS Message Switching Centre	6.00%
	7,4	Message Handling	1.40%
	7.4.1	AFTN Message Handling	6.50%
	7.4.2	AMHS	3.70%
	7.4.3	AFTN/AMHS Gateway	2.00%
	7.4.4	AFTN/EMAIL Gateway	0.70%
	7.4.5	AFTN/AMHS Interface to ATNS Billing System	2.40%
	7,5	Message Functions	0.30%
	7.5.1	Message Creator, Submission and Delivery	3.10%
	7.5.2	Re-transmission of messages	1.40%
	7.5.3	Message Storing, Search & Retrieval, and Tracing	2.60%
	7.5.4	Archiving	1.40%
	7.5.5	Message Queues Management	2.60%
	8	SUB-SYSTEMS TECHNICAL SOFTWARE SPECIFICATIONS	2.60%
	8,1	AFTN/AMHS User Agent (UA) Subsystem	
	8.1.1	Application Software	
	8.1.2	Message Creation and Transmission	4.40%
	8.1.3	Message Management	5.40%
	9	SYSTEM FUNCTIONAL REQUIREMENTS	2.70%
	9,1	Central Configuration and Software Server	
	9,2	Training and Evaluation System Operation	0.70%
	9,3	Dual Site Handling – D&R and Remote System Operation	0.70%
	10	OTHER TECHNICAL REQUIREMENTS	2.40%
	10,1	Civil Works	
	10,2	Power Supply	0.30%
	10,3	Environmental Conditions	0.30%
	10,4	Communication Lines	0.30%
	11	ENVIRONMENTAL AND SUSTAINABILITY Requirements	0.70%
	11,1	Materials and Product Lifecycle	
	11,2	Waste handling and disposal	0.70%
	11,3	Energy Efficiency	0.70%

ELEMENT No.	Paragraph	ELEMENT Name	Weighting (%)
		Volume 3 – PROJECT MANAGEMENT SPECIFICATIONS	**100,0%**
	1	**GENERAL INSTRUCTIONS TO BIDDERS**	
	2	**BIDDER/CONTRACTOR OBLIGATIONS**	
E1	**3**	**Reference Letter**	20.00%
E2	**4**	**PROJECT MANAGEMENT**	
E2.1	4.1	General	0.50%
E2.2	4.2	Project Management Plan	5.00%
E2.3	4.2.1	Project Scope	0.50%
E2.3.1	4.2.2	Project Milestone	1.00%

E2.3.2	4.2.3	Contract Data Requirements List	1.00%
E2.3.3	4.2.4	Work Breakdown Structure	2.00%
E2.3.4	4.2.5	Change Management Plan	1.00%
E2.3.5	4.2.6	Communication Management Plan	0.50%
E2.3.6	4.2.6.1	Meetings	1.00%
E2.3.7	4.2.7	Master Project Schedule	4.00%
E2.4	4.3	Resource Allocation Plan	5.00%
E2.5	4.4	Resumes of Key Personnel	10.00%
E2.6	4.5	Health and Safety Management Plan	1.00%
E2.7	4.6	Risk Management Plan	
E2.7.1	4.6.1	Risk Analysis	2.00%
E2.8	4.7	Environmental Management Programme	1.00%
E2.9	4.8	Quality Management Plan	
E2.9.1	4.8.1	Quality Assurance Programs	2.00%
E2.9.2	4.8.2	Quality Assurance Audits	1.00%
E2.9.3	4.8.3	Responsibility for Quality Assurance	1.00%
E3	**5**	**SYSTEM ENGINEERING**	
E3.1	5.1	System Engineering Master Plan	6.00%
E3.1.1	5.1.1	Site Survey	4.00%
E3.1.2	5.1.2	System Design Review	8.00%
E3.2	5.2	Test and Evaluation Master Plan	11.00%
E3.3	5.3	Installation, Transition and Commissioning (ITC) Plans	11.00%
E4	**6**	**ACSA Permits**	
E4.1	6.1	Personal Permit	0.50%

ELEMENT No.	Paragraph	ELEMENT Name	Weighting (%)
		Volume 4 – LOGISTIC SUPPORT SPECIFICATIONS	**100,0%**
	1	**INTRODUCTION**	
	2	**ATNS MAINTENANCE AND SUPPORT CONCEPT**	
	3	**GENERAL INSTRUCTIONS TO BIDDERS**	
	4	**BIDDER/CONTRACTOR OBLIGATIONS**	
E1	**5**	**PHASE 1: DEVELOPMENT PHASE**	
E1.1	5.1.	System Performance Requirements	10.00%
E2	**6**	**SUPPORT CONCEPT**	
E2.1	6.1	Support Concept Proposal	2.00%
E2.2	6.2	(LSIP) Logistics Support Implementation Plan	2.00%
E2.3	6.3	Logistics Support Plan (LSP)	4.00%
E2.4	6.4	Reliability, Availability and Maintainability Plan (RAMP)	6.00%
E2.5	6.5	Training Plan (TP) (Including provision of training)	6.00%
E2.6	6.6	Spares Plan (SP)	6.00%
E2.7	6.7	Test Equipment Plan (TEP)	5.00%
E2.8	6.8	Documentation Plan (DP)	6.00%
E2.9	6.9	Package Handling Storage and Transport Plan (PHS&TP)	5.00%

E2.10	6.1	Configuration Management Plan (CMP)	6.00%
E2.11	6.11	Total Estimated LRU Repair Costs (over the System Lifespan)	3.00%
E2.12	6.12	System Lifespan	2.00%
E2.13	6.13	Interface Control Document (ICD) and Application Program Interface (API)	2.00%
	7	**PHASE 2: IMPLEMENTATION PHASE**	
E3	**8**	**PHASE 3 - VALIDATION PHASE**	
E3.1	8.1	PBU	11.00%
E3.2	8.2	Verification	6.00%
E3.3	8.3	Updates	2.00%
	9	**PHASE 4: APPLICATION PHASE**	
E4	**10**	**CONTRACT DATA REQUIREMENTS LIST**	
E5	**11**	**SYSTEM FAILURE DEFINITION AND RELATED CORRECTION SERVICE LEVELS**	2.00%
E6	**12**	**MAINTENANCE AND SUPPORT CONTRACT REQUIREMENTS**	14.00%