# AIR TRAFFIC AND NAVIGATION SERVICES CO. LTD

# REQUEST FOR PROPOSALS:

**ATNS/RFP04/03/2025/26/ATIS**

# ATIS REPLACEMENT PROJECT

**The supply, delivery, commissioning, and support of a new ATIS system**

**[Project Reference: Com_2013_174]**

# VOLUME 2

**Version 0.2**

# TECHNICAL SPECIFICATIONS

**March 2026**

**The information contained within this document is confidential to ATNS in all respects and it is hereby acknowledged that the information as provided shall only be used for the preparation of a response to this document. The information furnished will not be used for any other purpose than stated and that the information will not directly or indirectly, by agent, employee or representative, be disclosed either in whole or in part, to any other third party without the express written consent by the Company or its representative.**

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# 1 Response to this document

The Bidder shall submit all responses, diagrams, project management documentation and drawings according to the GENERAL INFORMATION AND INSTRUCTIONS TO BIDDERS document and in the English language.

To assist Bidders only, each paragraph or article has been appended throughout with the letters "(M)", "(D)", "(O)" or "(I)", to indicate whether the requirement is **M**andatory, **D**esirable, **O**ptional or for **I**nformation only.

**ALL RESPONSES TO THE REQUIREMENTS IN THIS DOCUMENT SHALL BE PROVIDED AS FOLLOWS:**

BIDDERS SHALL RESPOND IN FULL TO EACH ITEM IN THE FORMAT PROVIDED AND REFERENCES TO DOCUMENTS AND RELEVANT INFORMATION SUPPORTING THE RESPONSES SHALL BE INDICATED IN THE SPACE PROVIDED. THIS INFORMATION WILL BE THE **ONLY RESPONSE USED FOR THE EVALUATION AND ASSESSMENT**.

Responses, provided in the space allowed, that are not clear or inadequate or the lack thereof shall be interpreted as **"Not Compliant"** even though the compliance column is declared as "Comply" and/or the Bidder's offer meets the requirement. Bidders shall ensure that each response correctly addresses the requirement stated. Responses not addressing the requirement of the specific paragraph shall be interpreted as **"Not Compliant"**.

Bidders shall declare compliance to each and every paragraph of this document in the column labelled "Compliance" as follows:

C: fully compliant = 2 points:
PC: partly compliant = 1 points;
NC: not compliant = 0 points.

For paragraphs marked "PC" or "NC", Bidder's shall include a statement as to the nature of the variation and may additionally supply supporting information in the space provided to demonstrate how the proposal meets the needs of ATNS.

# 2 Introduction

## 2.1 Scope

The Automatic Terminal Information Service (ATIS) is used for the automatic provision of current, routine information to arriving and departing aircraft throughout 24 hours or a specified portion.

The scope of the project is the supply, delivery, installation, and commissioning of an ATIS system at FABL, FAGG, FAPE, FAEL, FACT, FACT SSS, FAOR, FAOR SSS, FALE and the ATA. The SSS systems shall be fully independent. Moreover, the scope will include

- Decommissioning of old ATIS systems.
- Disposal of the old ATIS system, following the ATNS waste management policy.
- 10-year support for the equipment.
- Training for operational and technical personnel.

# 3 Cost Proposal

A. The Bidders shall include the following baseline cost information (D):

- ATIS Hardware
- Installation
- Commissioning
- Project management
- Logistics
- SHE file
- Disposal of the old equipment
- Training
- Support contract

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. The Bidders shall include a cost per airport for: (D)

- Replacement of the ATIS system and its supporting infrastructure as described in Volume 2.
- Installation, commissioning, project management, SHE file, disposal and training

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

# 4 General

## 4.1 Scope

A. Bidders shall describe their understanding of the scope of work. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. Bidders are required to supply and deliver an ATIS system that complies with the specifications below. Bidders shall provide a comprehensive description and design of the ATIS system replacement and plans on how the work will be carried out. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 4.2 Permit Requirements

A. The standard pre-conditions for complying with ACSA legislative and permit requirements are applicable. (I)

- Permit applications will be required for all individuals who will be working at the airport.
- A permit is required for vehicles to be driven at the airport.
- The drivers of the vehicles will require a driving permit/license.

| | | |
|---|---|---|
| **COMPLIANCE (Noted)** | | |
| *[THE BIDDER MAY INSERT A RESPONSE WHERE APPLICABLE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 4.3 System General Requirements

A. The Bidder shall provide proof that the system proposed has been installed and operational in other Air Traffic Management/Air Navigation Service Provider environments. Letters from the respective client/s or the OEM, including a list of contactable client references where the system is installed and operational, will be accepted as proof. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. The system shall comprise commercially off-the-shelf (COTS) hardware as far as possible. The bidder shall provide a list of COTS hardware. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

C. ATNS's preferred operating system is Windows. Bidders shall identify the operating system(s) upon which the proposed system is based. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 4.4 Operation Environmental Conditions

**A.** The system and its supporting infrastructure shall operate under the environmental conditions specified in Table 1. Bidders shall provide system data sheet/manufacturer information sheet indicating compliance. (D)

Table 1:ATIS system Environmental Conditions

| | |
|---|---|
| Ambient Temperature | 0 °C to +40 °C |
| Relative Humidity | 10% to 80% non-condensing |
| Temperature Variations | 0 °C to 20 °C in 24-hour Period |

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 4.5 Power Requirements

A. The system and auxiliary infrastructure shall operate from 230V ± 10% at 50Hz ± 5% AC mains power supply. Bidders shall include data sheets to indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. The system shall have over and under-voltage protection to prevent any damage to the system components due to insufficient input power feed or more than the required input power feed. Bidders shall provide supporting information indicating compliance with this requirement, including data sheets for devices that will be used to meet the above requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

C. The system shall have over and under-current protection to prevent any damage to the system components due to insufficient input power feed or power spikes. Bidders shall provide supporting information indicating compliance with this requirement, including data sheets for devices that will be used to meet the above requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

D. The system shall be protected against electrical surges. Suitable electrical protection devices shall be provided in accordance with SANS 10142-1. Bidders shall provide data sheets for devices that will be used to meet the above requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

E. The system and its auxiliary shall be grounded (earthing) to protect against lightning strikes and electrostatic discharge. The system shall be connected to the building earth bar. Suitable lightning protection devices shall be provided in accordance with SANS 10142-1. Bidders shall include data sheets for the lighting protection devices to indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

F. The system shall have a dual power feed. Static switches shall be provided for equipment with only one (1) power input. Bidders shall include data sheets for the static switch to indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

G. The changeover from main power feed to standby should be seamless to ensure the equipment operations are not disturbed. Bidders shall explain how this requirement will be carried out. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 4.6 Lifespan

A. The system and supporting infrastructure shall be designed to operate within specifications and under the stated environmental conditions in Table 2 for a minimum period of 10 years. Bidders shall explain how this requirement will be met. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 4.7 System Redundancy

A. The system shall have redundant dual servers on hot standby to ensure service provision is not compromised and to guarantee maximum system availability. This includes networking and processing hardware, audio interfaces and supporting infrastructure. Bidders shall provide a comprehensive diagram of the proposed solution, showing redundancy. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 4.8 Labelling

A. The system cables shall be labelled, indicating what and where the cable is connected to. Bidders shall include the proposed labelling system/format that will be followed. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. The system hardware shall be labelled, indicating each connection. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 4.9 Auxiliary

A. The project shall provide cables for the ATIS system to be commissioned and deemed fully functional. Bidders shall include the costs of all the required cables as part of Volume 1C. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. The project shall provide circuit breakers needed for the ATIS system to be commissioned and deemed fully functional. The circuit breaker shall meet the system's requirements, including supporting infrastructure. Bidders shall include data sheets to indicate proposed circuit breakers. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

C. All mains wiring power shall be done per the wiring of premises (SANS 10142-1) requirements. Bidders shall provide supporting information indicating compliance with SANS 10142-1 or similar standards. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

# 5 Technical Requirements

## 5.1 General

A. The content of the D-ATIS message and Voice-ATIS message shall be identical. Bidders shall indicate compliance using a screenshot of the system indicating that the two messages are identical. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. The system shall comply with the standards and recommendations from ICAO Annexure 3. Bidders shall provide supporting information that the proposed system considers the standards and recommendations from ICAO Annexure 3. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

C. The system shall comply with the standards and recommendations from ICAO Annexure 11. Bidders shall provide supporting information that the proposed system takes into account the standards and recommendations from ICAO Annexure 11. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

D. The system shall comply with the standards and recommendations from ICAO Annexure 14. Bidders shall provide supporting information that the proposed system considers the standards and recommendations from ICAO Annexure 14. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

E. The system shall comply with the standards and recommendations from ICAO Doc 9694. Bidders shall provide supporting information that the proposed system considers the standards and recommendations from ICAO Doc 9694. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

F. The system shall comply with the standards and recommendations from ICAO Doc 9837. Bidders shall provide supporting information that the proposed system considers the standards and recommendations from ICAO Doc 9837. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

G. The system shall meet the requirements and standards of the EUROCAE ED-89A document. Bidders shall indicate provide supporting information that the proposed system considers the requirements from EUROCAE ED-89A. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

H. The system shall be configurable to reference magnetic North. Bidders shall provide a system data sheet/manufacturer information sheet indicating compliance or a screenshot indicating how the system can be configured to reference magnetic North. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

I. The system shall be configurable to reference true North. Bidders shall provide a system data sheet/manufacturer information sheet indicating compliance or a screenshot indicating how the system can be configured to reference true North. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

J. The system shall perform the calculations to convert from true North wind direction to magnetic North per airport. Bidders shall explain how the system performs the calculations. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

K. The system shall perform the calculations to convert from magnetic North to true North. Bidders shall explain how the system performs the calculations. (D)

| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
|---|---|---|
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 5.2 ATIS Information Input

A. The ATIS system shall receive weather/meteorological information from the local AWOS server via the Local Area Network (LAN). The system shall receive and process the following observation reports:

i. Local routine and special reports (MET reports)
ii. METAR
iii. SPECI

Bidders shall explain how the proposed solution will accomplish this task. (D)

| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
|---|---|---|
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. The choice regarding the type of report to be processed by the system (local routine/special report or METAR) shall be configurable. This configuration shall only be available at the system level by technical maintenance personnel. Bidders shall indicate how they will comply with this requirement. (D)

| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
|---|---|---|
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

C. The ATIS system shall be able to take inputs from the user (i.e., ATCO, ATSA) through a keyboard and mouse. Bidders shall provide a data sheet or information sheet for the proposed mouse and keyboard. (D)

| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
|---|---|---|
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

D. The client shall be able to update general information such as:

i. Runway in use for both arrival and departure
ii. Delays
iii. Approach type
iv. Free text block
v. Global Reporting Format (including Runway Condition Code)
vi. Zone change (drop-down list)

Bidders shall explain how this will be accomplished. (D)

| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
|---|---|---|
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

E. The free text block field size shall be scalable to fit user requirements (i.e., fit 3 lines of text). Bidders shall include a screenshot indicating the free text block field. (D)

| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
|---|---|---|
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

F. If the parameters in 5.2 [D] are not specified, the system shall not include that parameter as part of the ATIS message. Bidders shall explain how this is achieved. (D)

| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
|---|---|---|
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

G. There shall be a drop-down list for each station's available runways. Bidders shall include a screenshot indicating how the drop-down list would look like as an example (this does not have to be the actual runways at the identified stations). (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

H. There shall be a drop-down list for each station's available approaches. Bidders shall include a screenshot indicating how the drop-down list would look like as an example (this does not have to be the actual approaches at the identified stations). (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

I. There shall be a drop-down list for the ICAO RCC codes for all 3 runway thirds. ICAO Doc 9981, Table II-V-2-5. Bidders shall include a screenshot indicating how the drop-down list would look like as an example . (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

J. The system user shall be able to update all the different drop-down lists (runway, approaches, zone change, RCC codes). Bidders shall explain how the drop-down lists will be updated. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 5.3 ATIS Message Generation

A. The system shall allow the generation of ATIS messages. Bidders shall explain how the ATIS message is generated. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. The system shall have multiple modes of operation. Bidders shall provide system data sheet/manufacturer information sheet indicating compliance. (D)

i. Auto Mode – receive information from different systems (e.g., AWOS), prefill ATIS message template and transmit the ATIS message without user input.

ii. Semi Mode – receive information from different systems (e.g., AWOS), prefill ATIS message template and await user input before transmitting the ATIS message.

iii. Manual Mode – the user will manually fill in the ATIS message template and broadcast the ATIS message. The Manual Mode shall only be available when the system has not received meteorological data from the respective systems.

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

C. In Auto and Semi Mode, the system shall receive meteorological data automatically from the Weather system (AWOS). Bidders shall explain how the proposed system accomplishes this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

D. The system, by default, shall be in the semi-mode. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

E. The system shall perform validity checks on both the incoming meteorological messages and manually entered information. Bidders shall explain how the proposed system performs validity checks. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

F. The system should check the completeness of the prepared ATIS message and inform the ATCO/user if there are incomplete fields or if provided values vary outside of the restrictions provided in ICAO Annexure 3. Bidders shall explain how the proposed system performs checks. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

G. The system shall be able to generate separate arrival and departure ATIS messages or combined ATIS messages. Bidders shall provide a screenshot/datasheet indicating how the proposed system will execute this requirement.. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

H. The system shall format the ATIS message in compliance with Annexure 11 Section 4.3. Bidders shall indicate how they will comply with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

I. The system shall allow the creation of new templates to allow the addition of more information as required. Bidders shall explain how new templates will be created. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

J. The system shall allow the user to create a free text message using a keyboard and mouse. Bidders shall indicate how they will comply with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

K. The system shall consist of multiple user-defined voice configurations as specified in 5.6. Bidders shall list the different voice configurations that are available on the proposed system. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

L. The system user shall be able to send/broadcast generated messages in Semi and Manual Modes. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

M. The system shall allow users to cancel a generated ATIS message in all operational modes. Bidders shall explain how the cancellation is done on the proposed system. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

N. The system should allow the user to transmit a predefined message “Standby, information being updated” while the ATIS message is updated. The system shall allow the creation of more predefined messages. Bidders shall explain how this will be carried out on the proposed system. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

O. The system user shall be able to print the generated messages through the connected ATNS-provided printer. Bidders shall indicate that the proposed system can do print outs. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 5.4 Message Contents

A. The system shall use English to broadcast/send ATIS messages. Bidders shall indicate the languages which are supported by the proposed system. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. Individual ATIS messages shall be identified by a designator from the ICAO alphabet, alpha through Zulu, on a cyclical basis (ATIS letter). This letter shall increment alphabetically every time a new ATIS message is transmitted. Bidders shall indicate how they will comply with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

C. The content of the ATIS message for arriving and departing aircraft should be as described in Annexure 11 Ed. 15, Chapter 4 Section 4.3.7. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

D. The content of the ATIS message for arriving aircraft should be as described in Annexure 11 Ed. 15, Chapter 4 Section 4.3.8. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

E. The content of the ATIS message for departing aircraft should be as described in Annexure 11 Ed. 15, Chapter 4 Section 4.3.9. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

F. The system shall alert the receiver if the wind direction and speed are set to zero. Bidders shall indicate how they will comply with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

G. The system should alert the receiver if the variance between average wind speed and maximum speed is too big. Bidders shall explain how the proposed system will accomplish this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

H. When rapidly changing meteorological conditions make it inadvisable to include a weather report in the ATIS, the ATIS messages shall indicate that the relevant weather information will be given on initial contact with the appropriate ATS unit. Bidders shall indicate how they will comply with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

I. The system ATIS message requirements shall align with the ICAO Doc 9694, Chapter 6, Table V-6-1. Bidders shall indicate compliance. (D)

| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
|---|---|---|
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

J. The system shall include the Runway Condition Assessment Matrix (RCAM) to represent the runway condition and use the Runway Condition Code (RCC) to distribute the information through the ATIS. Bidders shall indicate how the proposed system meet this requirement. (D)

| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
|---|---|---|
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

K. The system shall display the prepared ATIS information through the client workstation HMI for previewing by the user (ATSO/ATCO) before publishing/broadcasting. Bidders shall provide a screenshot of the client HMI display. (D)

| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
|---|---|---|
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

L. The ATIS message shall contain at least the following information (see ICAO Annexure 11, Chapter 4, Number 4.3.7 for the full list):

i. Name of the aerodrome (Manual input/Automatic)
ii. Arrival and/or departure indicator (Manual)
iii. Delay (Manual)
iv. Contract type, if communication is via D-ATIS
v. Information letter identifier (automatic)
vi. Time of the weather observation in Zulu time (NTP server)
vii. Types of approach(es) to be expected (Manual)
viii. Runway in use (Manual).
ix. Runway surface conditions (i.e., Brake action) (Manual/ Automatic).
x. Runway contamination (Manual).
xi. Supplementary information such as birds in the vicinity (Manual)
xii. Runway Visual range (AWOS/Manual).

xiii. Hazardous wind condition (Manual).

xiv. MET information (AWOS).

Note: The information in the brackets indicates where the information is received.

Bidders shall provide a screenshot which shows the different information indicated above. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 5.5 ATIS Message Transmission/Broadcasting

A. The system shall transmit terminal information using a synthesised voice. Bidders shall provide details of the voice synthesiser that is used for the proposed system. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. The system shall transmit the synthesised voice-ATIS message through the existing analogue and IP-based VHF transmitters. ATNS will supply two VHF transmitters in a main/hot-standby configuration. The bidders shall indicate that the proposed system supports analogue and IP based VHF radios. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

C. The Voice-ATIS audio output level to the VHF transmitter shall be adjustable between -20dBm and +5dBm, 600 ohm balanced with transformer isolation. Bidders shall explain how the proposed solution will accomplish this task. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

D. The system shall have outputs suitable for driving the Push-to-talk (PTT) inputs on the VHF transmitters. Bidders shall provide system data sheet/manufacturer information sheet indicating compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

E. The system shall transmit voice-ATIS messages in a loop until a new updated message is received or when conditions or procedures affecting various components of the ATIS message change substantially. Bidders shall explain how this requirement is carried out by the proposed system. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

F. The system shall update the message every thirty (30) minutes during the day by default or immediately if a significant change occurs (ICAO Annexure 11). Bidders shall indicate the different update times available on the proposed system. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

G. The system shall continuously monitor the Met data received from the AWOS to ensure that when a significant change occurs, the system immediately updates the ATIS message. Bidders shall indicate compliance. (D)

**Note**: significant change criteria are specified in ICAO Annexure 3, Appendix 3, 2.3.2

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

H. The system user shall be able to configure the transmitting time interval. Bidders shall indicate how they will comply with this requirement. (D)

| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
|---|---|---|
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

I. The system shall produce a visual and audible alarm (switchable ON/OFF) whenever the ATIS message update is delayed (in reference to the configured transmitting interval time) to both the client workstation and maintenance workstation. Bidders shall indicate how they will comply with this requirement. (D)

| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
|---|---|---|
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

J. The system shall produce an alarm (switchable ON/OFF) when new ATIS information is received from the AWOS. Bidders shall indicate compliance. (D)

| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
|---|---|---|
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

K. The system shall show the length of the voice-ATIS message in minutes and seconds. Bidders shall indicate compliance using screenshots. (D)

| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
|---|---|---|
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

L. The system shall have a playback function to verify ATIS messages prior to broadcasting on the controller position. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

M. The system shall have the following predefined standard format as a minimum:

i. Departures ATIS

ii. Arrival ATIS

iii. Combined ATIS (departure and arrival)

Bidders shall indicate how they will comply with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

N. The system shall support the transmission of automated messages at predefined intervals. For example, it should broadcast an airport closure notification every Sunday at 9:00 PM. Bidders shall explain how this requirement will be met by the proposed system. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

O. The system alarm tones shall be changeable and volume adjustable. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 5.6 Voice Setup

A. The system shall have multiple user-defined voice configurations; the following shall be available at a minimum:

i. Male and Female voice
ii. Adjustable voice volume
iii. Adjustable voice speed
iv. Adjustable voice pitch

Bidders shall provide supporting information indicating the available voice configurations in the proposed system. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 5.7 Datalink

A. FACT, FALE and FAOR shall have datalink capabilities. Bidders shall provide overall system design diagrams indicating datalink modules at these three stations. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. FACT and FALE shall be connected to the datalink via FAOR. The bidder shall provide the overall system design diagram indicating these connections. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

C. The system shall display a transaction status confirming the acknowledgement of transmitted DATIS messages. Bidders shall indicate compliance supported by the provision of screenshots which show acknowledgement statuses. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 5.8 ATIS Message Preview and Playback

A. The system shall have a window to preview and playback the ATIS message prior to broadcasting. Bidders shall provide screenshots indicating the preview and playback window. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. This window shall display the current D-ATIS message being broadcasted. Bidders shall provide a screenshot indicating the current D-ATIS message. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

C. The window shall enable transmitted voice-ATIS messages to be listened to. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

D. The window shall allow manual alterations of ATIS messages, if necessary, before broadcasting. Bidders shall explain how the proposed solution will accomplish this task. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 5.9 Application Programming Interface (API)

A. The system shall have an API to allow provision of any data within the system such as ATIS system information and ATIS letter or parts of the ATIS message (e.g., runway in use) to external systems. Bidders shall indicate how they will comply with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. The system shall be provided with a guideline on how to connect to the API. Bidders shall provide a draft guideline on how to connect to the API. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

C. The system shall restrict the API to ATNS use only. Bidders shall explain how this requirement will be met. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

D. The system API shall have built-in data privacy features to protect access to data from unauthorised personnel. Bidders shall explain how this requirement will be met. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 5.10 System Logs and Archive

A. The system shall log the exact time the meteorological data is received. Bidders shall provide a screenshot of a log report. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. The system shall log where the data is received from. Bidders shall provide a screenshot of a log report indicating from where the information is received. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

C. The system shall log the exact time the ATIS message was generated and broadcasted to the VHF radios. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

D. The system shall log all previous ATIS messages in a text-based format. Bidders shall indicate how the proposed system meets this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

E. The system shall generate log files based on user requests. The file logs shall include at least the following:

i. Event logs
ii. System logs (including errors, warnings, failures and unexpected shutdowns)
iii. Access logs
iv. System configuration change logs.
v. System availability and performance logs.

Bidders shall provide supporting information/screenshots indicating compliance with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

F. The system shall log all incoming requests via the datalink function. Bidders shall provide supporting information/screenshots indicating compliance with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

G. The system shall log all the calls received for ATIS messages via telephone. Bidders shall provide supporting information/screenshots indicating compliance with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

H. The above logs shall be retained for a minimum of 1 year. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 5.11 Safety Requirements

A. The system shall be able to test whether the transmission is transmitted by feeding the analogue audio back to the system for checks. Bidders shall provide supporting information indicating compliance with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. The system shall have a Built-In-Test Equipment (BITE). Bidders shall provide details on the BITE for the proposed system. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

C. The system shall include diagnostic functions to monitor its operational health. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

D. The system shall have a mechanism to eliminate double transmissions through the VHF radios. Bidders shall indicate how they will comply with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

# 6 Subsystems

## 6.1 Maintenance Workstation

A. The system shall have a physical maintenance workstation that will be used by technical personnel to monitor, configure and maintain the system. Bidders shall provide a data sheet/s for the computing equipment for the maintenance workstation. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. The system maintenance workstation shall include a graphic representation of the system's layout and its components (i.e., firewall, audio servers, system servers, and external systems such as VHF radios, Datalink, etc). Bidders shall provide a graphic representation of the proposed solution indicating the different components. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

C. The system maintenance workstation shall allow the following:

i. Preview replay ATIS message (as described in 5.8)

ii. Preview system status

iii. Configuration of the system, including client workstation.
Bidders shall provide supporting information/datasheet/screenshots indicating compliance with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

D. The maintenance workstation shall be installed in the equipment room. (I)

| | | |
|---|---|---|
| **COMPLIANCE (Noted)** | | |
| *[THE BIDDER MAY INSERT A RESPONSE WHERE APPLICABLE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

E. The system shall be able to access the logged data (as described in 5.10). Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

F. The maintenance workstation shall have alarms if the equipment or sub-components fail. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

G. Alarm indication shall be both visible and audible. Bidders shall specify the different alarm levels available in the proposed system. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

H. The system shall display the operation status on the maintenance workstation using distinct colours, e.g., Red, Yellow, and Green (RYG) colour coding. Bidders shall provide supporting information/screenshots indicating compliance with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

I. The maintenance workstation shall provide all system management and configuration functionalities that allow the system to perform optimally. Bidders shall provide supporting information indicating compliance with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

J. The maintenance workstation shall be able to diagnose the system to at least module level. Bidders shall provide supporting information indicating compliance with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

K. System alarms shall remain active until they are acknowledged. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

L. Each of the 10 sites (i.e., FAOR, FACT, FALE, FABL, etc) shall have a maintenance workstation. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

M. The FAOR maintenance workstation shall be able to monitor and manage the FAOR SSS ATIS system, and the FACT maintenance workstation shall be able to monitor and manage the FACT SSS ATIS system. Bidders shall provide supporting information indicating compliance with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 6.2 Rack-mounted Monitor

A. The system shall have a Keyboard Video Mouse (KVM) unit mounted to the rack so that local technical personnel can monitor and control the ATIS system. Bidders shall provide datasheet for the KVM. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. This unit shall have functionalities similar to those of the maintenance workstation. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 6.3 Client Workstation

A. The system shall have a client workstation to display the ATIS message and allow the system user to edit, fill or/and update the ATIS message. Bidders shall provide a datasheet for the computing equipment for the client workstation. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. Client workstation shall have the capability to:

i. Generate the ATIS message
ii. Edit and update the ATIS message
iii. Preview ATIS messages
iv. Playback the ATIS message
v. Publish/broadcast the ATIS message

Bidders shall provide supporting information indicating compliance with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

C. The client workstations shall be in the tower control room except for the ATA training system. Each of the 10 sites (FABL, FAGG, FAPE, FAEL, FACT, FACT SSS, FAOR, FAOR SSS, FALE and ATA) shall have its own client workstation. The bidder shall ensure that the different client workstations are included in the pricing schedule (D).

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

D. Provisions shall be made to install ATIS client workstations in FAOR and FACT emergency towers linked to the SSS systems. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 6.4 Server

A. The system servers shall auto-start after a failure or power restoration. Bidders shall provide datasheets/information sheets for the servers. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. The system servers shall be rack mounted. Bidders shall provide a datasheet to indicate compliance with the requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

C. The monitor for the management and configuration of server computers shall be a rackmount, retractable option on a sliding console/drawer with a keyboard and mouse. Bidders shall provide data sheets/information sheets indicating compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

D. The system shall include a KVM switch with 16 ports and tested for at least FIPS 140-2. Bidders shall provide supporting information indicating compliance with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 6.5 Human Machine Interface (HMI)

A. The HMI shall include a visual display of the time since the last METAR or MET report was received. Bidders shall provide a screenshot indicating the time since the last report was received. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. The system software running on the platforms shall have an HMI that is intuitive to guide the user in operating the system. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

C. The system shall have different HMI windows for different profiles, i.e., client, maintenance, and administrator. Bidders shall provide screenshots for the different profiles. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

D. The client profile shall consist of the following information:

i. ATIS letter/designator
ii. Meteorological data as described in section 7.4
iii. Runway in use
iv. RCC codes
v. Last message transmitted time

vi. Audio functions (replay)
vii. Operational mode (Auto, Semi and Manual)
viii. Delay
ix. Time
x. Free text box
xi. ATIS message (ATIS text, ATIS voice and D-ATIS)

Bidders shall provide supporting information/screenshots indicating compliance with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

E. The client HMI window shall always be running. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

F. The maintenance profile shall consist of the architecture of the system and its components and display the status of each component. Bidders shall provide supporting information (i.e., system architecture, system layout) indicating compliance with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

G. The maintenance profile shall consist of the following information:

i. ATIS letter

ii. ATIS message (ATIS text, ATIS voice and D-ATIS)

iii. Alarms

iv. Request and responses of the datalink.

Bidders shall provide supporting information/screenshots of the HMI indicating compliance with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

H. The administrator profile shall consist of the following information:

i. User management

ii. System configuration

iii. All functions of client and maintenance windows.

Bidders shall provide supporting information/screenshots of the HMI indicating compliance with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

I. Monitoring of audio for both client and maintenance workstations shall be possible through built-in workstation/computer speakers. The volume shall be adjustable from the application/HMI. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 6.6 Software

A. All operating and application software shall be provided and installed on relevant machines. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. Operating systems (OS) and application software (AS) must be available to reinstall system servers, client computers, and maintenance computers. The copies shall be provided to ATNS. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

C. The client and maintenance OS and application software shall be installed on a Commercial off-the-shelf (COTS) computer. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

D. The client and maintenance software shall allow for deployment on multiple positions of client and maintenance PCs. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

E. The software updates, patches, new versions, and releases shall be cumulative. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

# 7 Training System

A. The training system is for training purposes. The training system to be installed at the ATA shall be independent, however similar to the operational system described herein, except with regards to the following requirements:

i. The training system shall have simulators to simulate the MET data reception, system status display and datalink functions. Bidders shall provide supporting information indicating compliance with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

ii. The system shall cater for the reception and use of live data from the AWOS server if required. Bidders shall provide supporting information indicating compliance with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

iii. The training system shall have the capability to connect and receive MET data from the FAOR AWOS server via the Local Area Network (LAN). Bidders shall provide supporting information indicating compliance with this requirement. (D)

| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
|---|---|---|
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

iv. Power and data cables shall be installed in the existing cable trays. (D)

| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
|---|---|---|
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

v. The client and maintenance workstations shall be installed at the ATA. Bidders shall provide supporting information indicating compliance with this requirement. (D)

| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
|---|---|---|
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

# 8 Broadcasting Frequency

A. The ATIS system shall transmit on the following frequencies on the respective sites. (D)

| Station | ATIS Frequency |
|---|---|
| FAPE | 126.800 MHz |
| FAGG | 126.225 MHz |
| FAEL | 126.650 MHz |
| FABL | 126.450 MHz |
| FACT | 127.00 MHz |
| FALE | 127.00 MHz |
| FAOR | 126.225 MHz |
| FALA | 126.650 MHz |
| ATA | Any chosen frequency. |

| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
|---|---|---|
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

# 9 System Interface Requirements

A. The system shall be connected to the following at a minimum:

i. AWOS
ii. System Status Display
iii. Datalink (SITA) server (FAOR only)
iv. Wide Area Network (WAN)
v. VHF Transmitter
vi. PABX
vii. Recorder

Bidders shall provide supporting information/datasheets indicating compliance with this requirement, Bidders should ensure that all seven items are covered in the response. (D)

| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
|---|---|---|
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. The system shall interact with various systems using the following interface types:

| Station | External system | Output to an external system | Input from an external system | Type | Protocol interface |
|---|---|---|---|---|---|
| FAOR FACT FALE SSS FAPE FAGG FAEL FABL | Datalink service provider | D-ATIS message | D-ATIS request | Ethernet | TCP/IP |
| | System Status Display | ATIS letter | Command to subscribe to ATIS letter | Ethernet | TCP/IP |
| | AWOS | N/A | Meteorological report | Ethernet | TCP/IP |
| | NTP | N/A | Time | Ethernet | TCP/IP or UDP |
| | Radios | ATIS audio & PTT | N/A | Ethernet/Analogue | TCP/IP and 4 wire E & M |
| | Recorder | ATIS audio | N/A | Ethernet | TCP/IP and 4 wire E & M |
| | PABX/Voice Modem | ATIS audio | N/A | Ethernet | TCP/IP |

*N/A – not applicable/no information

Bidders shall provide supporting information/datasheets indicating compliance with this requirement. (D)

| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
|---|---|---|
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

C. The system shall be interfaced with the current recording system for recording the voice-ATIS messages. The installation at ATA is an exception to this requirement. Bidders shall indicate compliance by providing system supported protocols that can be used to record the ATIS voice. (D)

| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
|---|---|---|
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

D. The system shall be interfaced with the PABX system/Voice modem to enable system users (e.g., pilots) to call or dial in for terminal information. The installation at the ATA is an exception to this requirement. Provision shall be made for both analogue and VOIP telephone lines. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

E. The system shall be IP-based. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

F. Where necessary, a Digital to Analogue Converter shall be used to interface with analogue systems. Bidders shall provide a datasheet for the proposed DAC. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

G. For analogue audio, the system shall have an amplifier output level that is adjustable to suit the input requirements of the VHF transmitter. Bidders shall provide supporting information indicating amplifier details or provision of an alternative to meet this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

H. The system shall be able to interface with ARINC and SITA interfaces to send and receive ATIS messages through datalink. Bidders shall provide supporting information indicating compliance with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

I. The system shall be able to send alarms/events to an external system through Simple Network Management Protocol (SNMP) or Simple Mail Transfer Protocol (SMTP). Bidders shall provide supporting information indicating compliance with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 9.1 Ethernet Interfaces

A. The system shall be able to connect to the LAN and WAN using the Ethernet port. Bidders shall provide datasheets to indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. The system shall have a dual Ethernet port. Bidders shall provide system data sheet/manufacturer information sheet indicating compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

C. The Ethernet port shall have a minimum transfer speed of 100\1000 Mbps. Bidders shall provide system data sheet/manufacturer information sheet indicating compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 9.2 Serial Interfaces

A. The system shall support, however not limited to, Serial Peripheral Interface (SPI).
Bidders shall provide supporting information indicating compliance with this requirement. Bidders shall also include the list of other serial interfaces that the system supports. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 9.3 Protocols

A. The system shall support Transmission Control Protocol/Internet Protocol (TCP/IP). Bidders shall provide system data sheet/manufacturer information sheet indicating compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. The system shall support User Datagram Protocol (UDP). Bidders shall provide system data sheet/manufacturer information sheet indicating compliance(D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

C. The system shall support Simple Network Management Protocol (SNMP). Bidders shall provide system data sheet/manufacturer information sheet indicating compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

# 10 Supporting Systems

## 10.1 Cabinet and Cabling

A. All cabling shall be neatly routed and clearly labelled within the equipment rack. Bidders shall indicate compliance and indicate cable labelling format that will be used. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. All auxiliaries required (i.e., krone blocks, cables, KVM, etc.) to install the system shall be provided. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

C. The system shall be provided with an equipment rack. Bidders shall provide data sheets for the equipment rack indicating the size of the equipment rack. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

D. The equipment rack shall have an anti-static strap to reduce the risk of equipment being damaged by electrostatic. Bidders shall provide supporting information for the anti-stap strap indicating compliance with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

E. The equipment rack shall be accessible from the front and back for maintenance. Bidders shall provide system data sheet/manufacturer information sheet indicating compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

F. The equipment rack shall be designed to allow natural heat dissipation and cable management. Bidders shall provide supporting information indicating compliance with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

G. The equipment rack shall have adjustable mounting rails and sliding shelves. Bidders shall provide system data sheet/manufacturer information sheet indicating compliance. (D)

| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
|---|---|---|
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

H. The equipment rack shall have lockable doors. The lock shall have a master key. Padlock locking mechanisms are not acceptable. Bidders shall provide system data sheet/manufacturer information sheet indicating compliance. (D)

| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
|---|---|---|
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

I. The equipment rack shall be able to house all the system hardware and supporting infrastructure. Bidders shall indicate compliance by providing a diagram indicating all the equipment that will be housed in the equipment rack. (D)

| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
|---|---|---|
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

J. An option for the ATIS servers to be virtual shall be provided. The provided virtual servers shall allow partitioning for installation of other software that are not related to ATIS. Bidders shall include a cost for virtual servers as part of Volume 1C as an option. (D)

| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
|---|---|---|
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 10.2 Uninterrupted Power Supply (UPS)

A. The system shall be connected to the building's Uninterrupted Power Supply (UPS), which will provide backup power for the system in case the main power supply fails. Bidders shall indicate compliance. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 10.3 Network Time Server

A. The system shall synchronise to the local time server clock using network protocols. Bidders shall indicate compliance by highlighting the network protocols supported by the system. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

## 10.4 Security Measures

A. The system shall implement access control to control permissions to files, directories, and registry keys and restrict user activities such as modifying system logs or installing applications. Bidders shall provide supporting information indicating compliance with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

B. Different personnel shall have different access levels depending on the classification levels. Bidders shall provide supporting information indicating compliance with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

C. The system shall implement Secure Audit settings, including, capturing key events such as failures, logons, permission changes, unsuccessful file access, creation of users and objects, deletion and modification of system files, registry key and kernel changes. Bidders shall provide supporting information indicating compliance with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

D. The system shall implement safeguards through software to protect end-user machines against attack, including antivirus, antispyware, anti-adware, personal firewalls, and host-based intrusion detection systems. Bidders shall provide supporting information indicating how the system will be safeguarded through software. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

E. The system shall use firewalls to protect its information against external network threats such as viruses and malware. Bidders shall provide supporting information indicating compliance with this requirement. Details of the proposed firewalls shall be provided as proof. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

F. The system shall allow for vendor-released patches in response to identified vulnerabilities, including software updates to be installed. Bidders shall provide supporting information indicating compliance with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

G. The system shall use the latest secure IP network connectivity. Bidders shall provide supporting information indicating compliance with this requirement. (D)

| | | |
|---|---|---|
| **COMPLIANCE (C/PC/NC)** | *Only responding C/PC/NC will not be accepted without proof.* | |
| *[INSERT FULL RESPONSE FOR EVALUATION HERE]* | | |
| *[INSERT REFERENCE TO ADDITIONAL INFORMATION HERE]* | | |

---------- END OF VOLUME 2 ----------