

**The Hashemite Kingdom of Jordan
Civil Aviation Regulatory Commission**



**Technical Support Directorate
AFTN Maintenance Division**

Technical Specification for

AMHS - Maintenance and Support

ACRONYMS

Version	Description
AFTN	Aeronautical Fixed Telecommunication Network
AMHS	ATS Message Handling System
MCU	MHS Centre Unit
MHS	Message Handling System
UA	User Agent
SARPS	Standards and Recommended Practices

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1 INTRODUCTION

1.1 General

This document is the Technical Specification of the required Maintenance and Support of the AMHS system for Jordan Civil Aviation Regulatory Commission .

1.2 Dates and duration of the contract

Indra avitech shall provide services for twelve (12) months from the Effective Date of the Service Order.

2 SCOPE OF MAINTENANCE & SUPPORT

2.1 Description of the required Support Services

2.1.1 General Support Services (incl. JIRA and Helpdesk/Hotline)

- 24*7 access to the Supplier's online Problem Report management system Prestige@JIRA.
- Acknowledgement and qualified initial response on reported issues.
- Proactive information concerning new product extensions and additional functionalities
- All problems shall be documented in this tool. If CARC does not raise such a report, Indra Avitech shall do so on CARC behalf.

2.1.1.1 Basic Support Services (incl. Helpdesk 8/5)

The helpdesk support shall provide assistance on an 8-hour-basis for a short-term reestablishment of the system functionality after a breakdown. Helpdesk expert support shall be available at any time during office hours, 5 days a week.

The helpdesk engineer on shift shall:

- connect to the Jordan CARC's system to analyse the problem;
- observe system reaction after implementation of the operational remedy;
- generate a service report stating:
 - Time of receipt of call for support
 - Time of first phone call to the hotline engineer to establish contact with the Indra Avitech system supervisor
 - Description of reported problem
 - Result of analysis
 - Proposed corrective action discussed with CARC system supervisor, concerning:
 - Bug fix to be implemented
 - Operational actions to be carried out
 - Corrective actions carried out
 - Observed system reaction after carrying out corrective action
 - Time of finishing support action
 - Generate a problem report with proposed definitive correction of the problem
 - The service report shall be submitted to CARC within 3 working days from the time of finishing the support action.
- Work on the problem will continue, independent of normal working hours, until the system is again operational.

2.1.1.2 Extended Support Services (incl. Hotline 24/7)

The hotline support shall provide assistance on a 24 hour-basis for a short-term reestablishment of the system functionality after a breakdown. Hotline expert support shall be available at any time of the day or the night, 365 days a year.

The hotline engineer on shift will carry out the activities described in the section above "Basic Support Services (incl. Helpdesk 8/5)" but on a 24-hour basis.

2.1.1.3 Additional Support Services

The helpdesk support shall provide assistance (at least one time) on any issue arises from Interoperability & Pre-operational tests with other AMHS COM Centre during the AMHS testing phase to ensure the successful completion and commissioning of the AMHS link.

2.1.2 Corrective Maintenance

Corrective Maintenance is tracing, repair and rectification of faults in the System, after the notification of such faults by CARC, or in so far as Indra Avitech has otherwise become aware of such faults. To be more specific, the corrective maintenance activities for the System shall comprise:

- Analysis of Problem Reports submitted by the Purchaser
- Trouble Shooting
- Provision of software patches and service releases
- Pro-active information to the Purchaser with respect to known bugs or problems

The CARC will report any observation, anomaly, misbehaviour, request or problem to the Supplier in accordance with the procedures and severity class and will do it through the Prestige@JIRA.application.

Then, the software maintenance service shall provide CARC a service number where the problem is reported and classified according to criticality:

- Cat 3, Critical, i.e. no operation of the system is possible,
- Cat 2, Major, i.e. impact on the operation of the system,
- Cat 1, Minor, i.e. no impact on the operation of the system.

After successful deployment of a patch or update package on the operational system and acceptance by the CARC, the affected system documentation shall be updated, and a final report shall be provided to CARC.

The reporting procedure and the description of the classification above mentioned can be found in more detail in **Annex B** - Problem Reporting Procedure.

2.2 Support Services excluded

The components and services excluded from the scope of this specification are the following:

- 1) Maintenance of third-party software:
 - a. Application and client software from Oracle
 - b. Antivirus software for all working positions and Terminals.
 - i. All webserver.
 - c. Operating system software for all working positions and terminals.
 - d. Operating system software for all servers.

- 2.) Upgrade of interfaces to external systems resulting from changes to those external systems.
- 3.) Hardware.

2.3 Maintaining Current Software

As part of this maintenance & support agreement, Indra avitech shall supply at least one new release containing fixes for all bugs found in CARC's AMHS system and other AMHS systems delivered and maintained by Indra avitech which may occur to CARC's AMHS system.

3 Miscellaneous

3.1 Service Warranty

For services provided under this agreement Indra Avitech warrants that:

- the work shall be provided in a professional and workmanlike manner;
- the work shall, at the time of acceptance, be free from defects in workmanship and conform to the requirements of the Agreement.

3.2 Language

The working language for all verbal communication, project meetings and correspondence shall be English.

ANNEX A SYSTEM UNDER SUPPORT

A.1 Supported Software

The software that shall be supported is as follows:

Description	License	Quantity
MHS / AIS Server Cluster		
MHS Application SW • AviSuite AFTN Switch • AviSuite AFTN / AMHS Gateway • AviSuite AMHS Switch ○ Isode X.400 M-Switch (Messaging) • System Management	Cluster License	1
MCU	Client License	4

A.2 Additional Software

After the signature of this maintenance contract, Indra Avitech shall provide additional 1 (one) UA license which shall also be supported under the scope of this contract. This additional UA license shall be delivered free of charge.

A.3 Hardware

Excluded.

ANNEX B PROBLEM REPORTING PROCEDURE

Each Problem Report shall be pre-classified according to the following Priority categories:

Priority	Procedure
Minor	Minor problem with no impact on the current operational use of the system: The problem shall be reported by using the Supplier's online Problem Report Management System. If a telephone call is necessary, it should be done during the Supplier's working hours to a member of the supplier's project team Acknowledgement and qualified initial response within two working days. Solution shall be made available within 4 months.
Major	Major problem with restricted impact on the operational use of the system: The problem shall be reported to a member of the supplier's project team during the Supplier's working hours. In addition, the problem shall be reported by using the Supplier's online Problem Report Management System. Acknowledgement and initial response within one working day. Analysis and intermediate solution typically within 10 working days. A necessary patch shall be made available within 2 months.
Critical	Critical problem with large impact on the operational use of the system or use of the system is currently impossible: The problem shall be reported to the Hotline telephone number given during the Supplier's working hours. In addition, the problem shall be reported by using the Supplier's online Problem Report Management System. Acknowledgement and qualified initial response within four hours of receipt (during opening hours of relevant help desk). Immediate analysis of problem and implementation of an intermediate solution / workaround. A necessary patch shall be made available within 10 working days.

In order to ensure the agreed response times a hotline telephone call is mandatory for all Problem Reports of Priority 'Critical'.

The final Priority classification shall be carried out by the Supplier in its sole judgement and after discussion with one of the CARC's authorized representatives.

Once the CARC system supervisor has been contacted, Indra Avitech personnel shall, in the case of a critical problem, continue with their analysis/corrections/recommendations until such time as the system is again operational.