International Civil Aviation Organization

MID ATS Message Management Center Steering Group

Second Meeting (MIDAMC STG/2)
(Cairo, Egypt 10 - 12 March 2015)

Agenda Item 3: MIDAMC and AMHS Implementation in the MID Region

AMHS IMPLEMENTATION NATIONAL PLAN

(Presented by the I.R.Iran)

SUMMARY

This information paper proposes the explanation about the National Implementation plan of Tehran AFTN/AMHS COM Center and transition from AFTN to AMHS.

Action by the meeting is at paragraph 3.

REFERENCES

- ICAO DOC.9880
- ICAO DOC.9896

1. INTRODUCTION

1.1 AMHS (Air Traffic Services (ATS) Message Handling Services), as specified in the ICAO ATN (Aeronautical Telecommunications Network) SARPs, is the new standard for ground to ground messaging communications, which is being adopted rapidly and will eventually replace existing AFTN and CIDIN systems. That is ATS Message handling system (AMHS) is the set of computing and Communication resources implemented by ATS units to provide the ATS Message Service in the other hand AMHS is the set of ATS messages server, ATS Message User Agent and AFTN/AMHS Gateways is known collectively as the ATS Message Handling Systems. The "ATS Message Service" is the end to end message service that AMHS provides. AMHS specifies the Service, and the underlying infrastructure that is used in order to provide this service. To build a complete system, The ATS Message Service needs to be provided to end users, sitting at terminals.

2. DISCUSSION

2.1 Iran Airport Company(I.A.C) AMHS national plan is designed to provide the roadmap to implement AMHS, underlying network supported TCP/IP, in I.R of Iran FIR(Tehran FIR) and has the ability to be active as an application in world IPS-based ATN. The objective of this paper is to provide guidance & information on activities of AMHS implementation for I.R of Iran FIR (Tehran FIR) Region to migrate from AFTN to AMHS. Type of AMHS system is extended service and capable to handle all functionalities of the new system in the world.

System Architecture

a) MTA/MS (X400 ATS message server)
b) DS (X 500 Directory Servers)
c) Communication Stacks (ATN. LAN. WAN) Note: ATN links consists of HF &Data link.
d) ATN/AMHS/AFTN Gateway
e) Management and Monitoring Facilities
f) AMHS terminal: User Agent (UA)
g) AIS, ATS. MET and Weather databank
h) Modular Client-Server architecture and based on IPS (Internet Protocol Suit)
i) Operating on IP V.4 & IP V.6 (Dual Stack ...)
j) Design of user interface through the Web in order to download/upload and refresh AMHS messages by End User System

2.1.1 MTA and USA.

2.1.1.1 Iran Airports Company has planned for one MTA in Tehran AMHS Com. Centres.

2.1.1.2 The MTA name is MTA-OIII-1.

2.1.1.3 According to IAC AMHS national plan all airports, airline offices, ATS and Military units that already connected to AFTN, will be communicated via UA to AMHS Network.

2.2 Connections

2.2.1 Tehran AFTN/AMHS COM Centre as an important COM center in MID region with 7 international AFTN Circuits such as Bahrain, Ankara, Karachi, Kuwait, Abu Dhabi, Masqat and Damascus is responsible to route all AFTN messages to/from all Areas in the world.

The Specification of International AFTN circuits in Tehran AFTN/AMHS COM Centre are as follows:

Circuit name	AFTN Address	Type	Speed
Bahrain	OBBIYFYX	AFTN	9.6 kbps
Kuwait	OKBKYFYX	AFTN	9.6 kbps
Abu Dhabi	OMAEYFYX	AFTN	9.6 kbps
Damascus	OSDIYFYX	AFTN	50 bps
Masqat	OOMSYFYX	AFTN	9.6 kbps
Karachi	OPKCYFYX	AFTN	9.6 kbps
Ankara	LTACYFYX	AFTN	64 kbps

Table 1: Tehran AFTN/AMHS COM Centre circuits Specification

2.2.2 Tehran AFTN/AMHS COM Centre will be upgraded the connections to IP-based in AMHS Network.

2.3 AMHS Addressing and Routing directory

2.3.1 Tehran AFTN/AMHS COM Centre will use CAAS AMHS Addressing Scheme.

2.3.2 AMHS MD specification of I.R.Iran will be C=XX; A=ICAO; P=IRAN, so “IRAN” value for PRMD attribute will be used.

2.3.3 Tehran AFTN/AMHS COM Centre has updated routing tables of AFTN network according to study and discussion status of AFTN network in MID region and other regions and our capabilities.

2.3.3.1 Updated Routing Table of Tehran AFTN/AMHS COM Centre is as follows:

Area	Outgoing circuit	Alternative circuit (1)	Alternative circuit (2)
A	Karachi AFTN	Kuwait AFTN	Masqat AFTN
B	Ankara AFTN	Bahrain AFTN	Kuwait AFTN
C	Ankara AFTN	Bahrain AFTN	Kuwait AFTN
D	Kuwait AFTN	Bahrain AFTN	Ankara AFTN
E	Ankara AFTN	Bahrain AFTN	Kuwait AFTN
F	Bahrain AFTN	Kuwait AFTN	Masqat AFTN
G	Kuwait AFTN	Bahrain AFTN	Ankara AFTN
H	Kuwait AFTN	Bahrain AFTN	Ankara AFTN
K	Ankara AFTN	Bahrain AFTN	Kuwait AFTN
L(Except LL,LC)	Ankara AFTN	Bahrain AFTN	Kuwait AFTN
LC	Bahrain AFTN	Kuwait AFTN	Masqat AFTN
M	Ankara AFTN	Bahrain AFTN	Kuwait AFTN
N	Karachi AFTN	Kuwait AFTN	Masqat AFTN
OA	Karachi AFTN	Kuwait AFTN	Masqat AFTN
OB	Bahrain AFTN	Kuwait AFTN	Masqat AFTN
OE	Masqat AFTN	Abu Dhabi AFTN	Karachi AFTN
OJ	Abu Dhabi AFTN	Bahrain AFTN	----
OK	Kuwait AFTN	Bahrain AFTN	Ankara AFTN
OL	Kuwait AFTN	Bahrain AFTN	Ankara AFTN
OM	Abu Dhabi AFTN	Bahrain AFTN	-----
OO	Masqat AFTN	Abu Dhabi AFTN	Karachi AFTN
OP	Karachi AFTN	Kuwait AFTN	Masqat AFTN
OR	Kuwait AFTN	Bahrain AFTN	Ankara AFTN
OS	Damascus AFTN	Kuwait AFTN	Bahrain AFTN
OT	Abu Dhabi AFTN	Bahrain AFTN	-----
OY	Masqat AFTN	Abu Dhabi AFTN	Karachi AFTN
P	Karachi AFTN	Kuwait AFTN	Masqat AFTN
R	Karachi AFTN	Kuwait AFTN	Masqat AFTN
S	Ankara AFTN	Bahrain AFTN	Kuwait AFTN
T	Ankara AFTN	Bahrain AFTN	Kuwait AFTN
U	Ankara AFTN	Bahrain AFTN	Kuwait AFTN
V(Except VA,VE,VI,VN,VO)	Bahrain AFTN	Kuwait AFTN	Masqat AFTN
VA	Karachi AFTN	Kuwait AFTN	Masqat AFTN
VE	Karachi AFTN	Kuwait AFTN	Masqat AFTN
VI	Karachi AFTN	Kuwait AFTN	Masqat AFTN
VN	Karachi AFTN	Kuwait AFTN	Masqat AFTN
VO	Karachi AFTN	Kuwait AFTN	Masqat AFTN
W	Bahrain AFTN	Kuwait AFTN	Masqat AFTN
Y	Bahrain AFTN	Kuwait AFTN	Masqat AFTN
Z	Karachi AFTN	Kuwait AFTN	Masqat AFTN

Table 2: AFTN/AMHS COM Centre Routing Table

2.3.3.2 Tehran AFTN/AMHS COM Centre will use this routing table in AMHS network configuration that will be implemented in the future.

2.4 Training

2.4.1 IAC planned to train Supervisory, Maintenance and Operational courses for Tehran AMHS COM Centre staff before system installation.

2.5 Participation in MID-AMC

2.5.1 I.A.C. has introduced CCC users for participation in MID-AMC from 10 May 2014.

2.5.2 The users have updated Routing and Connection information of Tehran AMHS COM Centre in MID-AMC on 24 Jun 2014.

2.5.3 IAC has participated with 2 representatives in MID-AMC course that was held in Amman-Jordan on 09-11 Jan 2015.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) note that I.A.C. has signed a contract with Avitech AG to purchase AMHS system but due to sanctions still not able to implement the system, so kindly requesting MID Office to support and facilitate the implementation of I.A.C AMHS system as appropriate;

b) I.R.Iran is interested to use MID Region and States ‘experience in AMHS Implementation.

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