International Civil Aviation Organization

MID ATS Message Management Center Steering Group

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

Agenda Item 4: **Enhancement of the MID AFS Network Services**

SITA AMHS INTERCONNECTION WITHIN ICAO MID Region

(Presented by the MIDAMC on behalf of SITA)

SUMMARY
This working paper presents a Summary of SITA message exchanges within ICAO MID Region and seeks an agreement to establish AMHS interconnections in ICAO MID Region with the proposed ANSPs. Action by the meeting is at paragraph 3.
REFERENCES
- CNS SG/6 Report

1. INTRODUCTION

1.1 SITA has been operating an AFTN – Type B gateway for over 40 years. The service was using low speed connections to the AFTN network in several countries. These inter-connections allowed ATS organizations and airlines to communicate using AFTN messages on the ATS organizations' side and Type B messages on the airlines' side. The SITA service provides all necessary conversions to enable seamless data exchange between ATS organizations and airlines.

1.2 Several of AFTN low speed connections reaching End of Life required urgent use of alternative XoT and IP based connections where possible to continue message exchanges.

1.3   Considering that AMHS implementation is well advanced within ICAO MID Region this working paper is to:

> a) Present SITA message exchanges with ANSPs within ICAO MID Region; and
>
> b) Seek interconnection with the proposed ANSPs and message rerouting to other ANSPs to establish appropriate delivery coverage within ICAO MID Region using AMHS.

1.1   A similar approach with ICAO EURNAT and APAC Regions concluded that specific ANSPs to work with SITA to establish AMHS interconnections.

2.   DISCUSSION

2.1   AMHS is being under active deployment by majority of ANSPs within ICAO MID Region in view of AFTN replacement for inter-State message exchanges.   Additionally the new rich data formats using XML is planned to be used over the next few years to further improve air traffic management effectiveness which requires the use of new generation messaging based on ICAO AMHS standards.

2.2   The move to this new communication path for SITA requires AMHS deployment and appropriate interconnections to AMHS on a Regional basis to reduce inter-Regional traffic as recommended by ICAO EUR AFSG.

2.3   The traffic analysis over the past 12 months shows that we currently receive from and send to all ANSPs within ICAO MID Region. This is mostly through rerouting done by ANSPs outside ICAO MID Region states.

2.4   An analysis of the traffic flows and interconnections between ANSPs within ICAO MID Regions show that the most effective interconnection topology is to have AMHS interconnections with Saudi Arabia and Qatar. The traffic to the other ANSPs can then be routed through the interconnection of other ANSPs to Saudi Arabia and Qatar. Nevertheless other or additional AMHS interconnection with other ANSPs can be envisaged as appropriate.

2.5   A proposed AMHS interconnection and rerouting to the Regional ANSPs is follows:
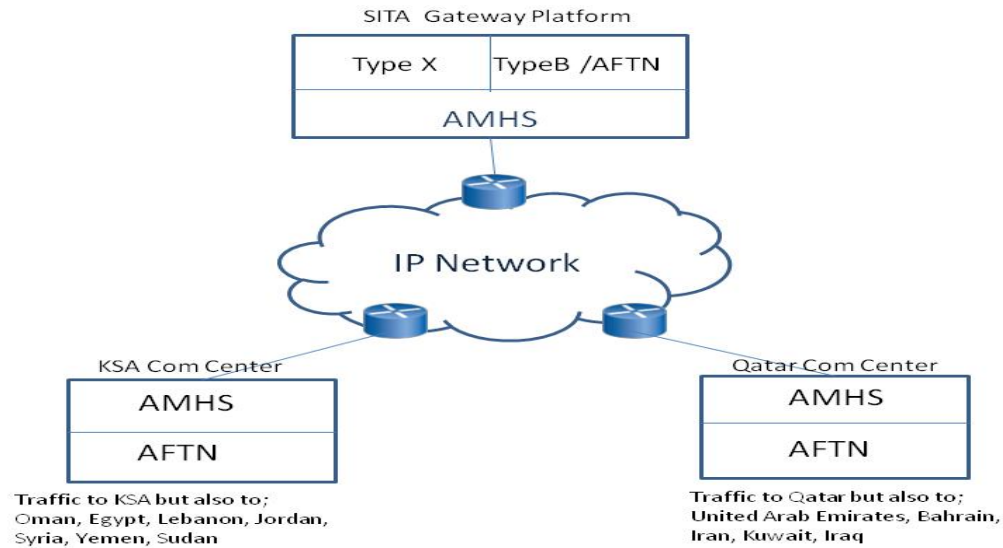
2.6   PRMD=SITA is already allocated by ICAO to SITA. This PRMD name is registered within AMC.

2.7   Following the technical and operational recommendations elaborated as a part of the AMHS/SITA Interconnection Architecture document, SITA addressing scheme changed from CAAS to XF scheme as C=XX/A=ICAO/P=SITA/O=AFTN/OU=AFTNADDR, where AFTNADDR is an AFTN address of a SITA user.

2.8   AFTN addresses of SITA users exchanging with COM centers are to be published in AMC User Address Look-up Table as soon as SITA access in updated.

2.9   SITA's AMHS Gateway is operational since November 2014 and ready for AMHS interconnections with ANSPs as necessary. Every connection will require a SITA IP access to the AMHS gateway using an already available or to be available SITA router.

2.10   When the Regional AMHS connections are established the Regional traffic is to be delivered through the established connections to reduce inter-Regional traffic as recommended by ICAO EURNAT AFSG.   An agreement with ICAO MID Region provides a similar path as with ICAO EURNAT as well as other ICAO Regions.

3. **ACTION BY THE MEETING**

3.1   The meeting is invited to:

a) discuss and provide comments on the presented material; and

b) propose establishment of SITA AMHS interconnection with the ANSPs within ICAO MID Region as defined in para. 2.5 as well as the subsequent actions to achieve the interconnection.

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