



**INTERNATIONAL CIVIL AVIATION ORGANIZATION**

**REPORT OF THE FIFTH MEETING OF THE  
AERONAUTICAL TELECOMMUNICATION NETWORK/  
INTERNET PROTOCOL SUITE WORKING GROUP**

**ATN/IPS WG/5**

*(Cairo, Egypt, 11-13 March 2013)*

The views expressed in this Report should be taken as those of the MIDANPIRG Aeronautical Telecommunication Network/Internet Protocol Suite Working Group and not of the Organization. This Report will, however, be submitted to the MIDANPIRG and any formal action taken will be published in due course as a Supplement to the Report.

Approved by the Meeting  
and published by authority of the Secretary General

The designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of ICAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontier or boundaries.

**TABLE OF CONTENTS**

**Page**

**PART I - HISTORY OF THE MEETING**

1.	Place and Duration .....	1
2.	Opening .....	1
3.	Attendance.....	1
4.	Officers and Secretariat .....	1
5.	Language .....	1
6.	Agenda .....	1-2
7.	Conclusions and Decisions – Definition .....	2
8.	List of Conclusions and Decisions .....	2

**PART II - REPORT ON AGENDA ITEMS**

Report on Agenda Item 1 .....	1-1
Report on Agenda Item 2 .....	2-1
Appendix 2A	
Report on Agenda Item 3.....	3-1/3-4
Appendices 3A-3D	
Report on Agenda Item 4.....	4-1/4-2
Appendix 4A-4G	
Report on Agenda Item 5.....	5-1
Appendix 5A&5B	
Report on Agenda Item 6.....	6-1
List of Participants .....	Attachment A

-----

ATN/IPS WG/5  
History of the Meeting

---

## **PART I – HISTORY OF THE MEETING**

### **1. PLACE AND DURATION**

1.1 The Fifth Meeting of Aeronautical Telecommunication Network/Internet Protocol Suite Working Group (ATN/IPS WG/5) was convened at the ICAO MID Regional Office in Cairo, Egypt, 11-13 March 2013.

### **2. OPENING**

2.1 Mr. Jehad Faqir, ICAO MID Regional Office Deputy Regional Director, on behalf of Mr. Mohamed R. M. Khonji, the Regional Director, welcomed the participants to Cairo and wished them a successful and fruitful meeting.

2.2 In his welcome speech he highlighted that the communication technology is advancing at an extremely rapid rate. New products and services are constantly being offered to the public with unprecedented capabilities, performance and capacity with decreasing costs. He urged the meeting to discuss the various difficulties faced in the Region for the implementation of ATN and IPS protocols to come up with solutions that will benefit the Region.

2.3 Mr. Faqir, outlined some main tasks of the meeting being the smooth and successful implementation of the MID-AMC, another main task, is the AIDC implementation plan for the MID Region as AIDC is one of the ASBU Block 0, that is required for the operation improvement in the region, and the ASBU methodology was accepted by the 12<sup>th</sup> Air Navigation Conference. In closing his remarks he thanked the participants for their presence and wished the meeting every success in its deliberations.

### **3. ATTENDANCE**

3.1 The meeting was attended by a total of twenty three (23) participants from six (6) States (Bahrain, Egypt, Jordan, Kuwait, Lebanon, Saudi Arabia, Sudan and UAE). The list of participants is at **Attachment A** to the Report.

### **4. OFFICERS AND SECRETARIAT**

4.1 The Rapporteur of the meeting was Mr. Mohamed Ali Saleh, Head, Aeronautical Communication, Civil Aviation Affairs of Bahrain. Mr. Raza Gulam, Regional Officer, Communications, Navigation and Surveillance (RO/CNS), acted as secretary of the meeting.

### **5. LANGUAGE**

5.1 The discussions were conducted in the English language and documentation was issued in English.

### **6. AGENDA**

6.1 The following Agenda was adopted:

ATN/IPS WG/5  
History of the Meeting

---

- Agenda Item 1: Adoption of Provisional Agenda
- Agenda Item 2: Follow-up on MIDANPIRG/13 and other meetings Conclusions and Decisions relevant to ATN/IPS WG TOR
- Agenda Item 3: Follow-up the progress of MID Region ATS Message Management Centre (MID AMC) project
- Agenda Item 4: Review and update of MID ATN Plans and Implementation issues
- Agenda Item 5: Future Work Programme
- Agenda Item 6: Any other business

## 7. CONCLUSIONS AND DECISIONS – DEFINITION

7.1 The MIDANPIRG records its actions in the form of Conclusions and Decisions with the following significance:

- a) **Conclusions** deal with matters that, according to the Group's terms of reference, merit directly the attention of States, or on which further action will be initiated by the Secretary in accordance with established procedures; and
- b) **Decisions** relate solely to matters dealing with the internal working arrangements of the Group and its Sub-Groups.

## 8. LIST OF CONCLUSIONS AND DECISIONS

- DRAFT CONCLUSION 5/1: MID-AMC OPERATION*
- DRAFT CONCLUSION 5/2: MID-AMC USER ACCREDITATION PROCEDURE*
- DRAFT DECISION 5/3: ESTABLISHMENT OF MID-AMC BOARD*
- DRAFT DECISION 5/4: REVISED TOR OF THE ATN-IPS WORKING GROUP*
- DRAFT DECISION 5/5: REVISED LIST OF TASKS*
-

ATN/IPS WG/5  
Report on Agenda Item 1

---

**PART II: REPORT ON AGENDA ITEMS**

**REPORT ON AGENDA ITEM 1: ADOPTION OF THE PROVISIONAL AGENDA**

1.1 The meeting reviewed and adopted the Provisional Agenda as at paragraph 6 of the History of the Meeting.

-----

ATN/IPS WG/5  
Report on Agenda Item 2

---

**REPORT ON AGENDA ITEM 2: FOLLOW-UP ON MIDANPIRG/13 AND OTHER MEETINGS  
CONCLUSIONS AND DECISIONS RELEVANT TO ATN/IPS TOR**

2.1 The meeting recalled that it has been agreed by MIDANPIRG that each subsidiary body review the Conclusions and Decisions related to its Terms of Reference and decide whether to maintain or replace by an updated Conclusions and Decisions, in order not to have too many Conclusions and Decisions which are ongoing.

2.2 Based on the above, the meeting noted the follow-up actions taken by concerned parties as **Appendix 2A** to the Report on Agenda Item 2 on MIDANPIRG/13 and CNS SG/5 meetings.

2.3 The meeting agreed in its deliberation to review the Conclusions and Decisions which are still current under the relevant Agenda Item.

-----

ATN/IPS WG/5  
 Appendix 2A to the Report on Agenda Item 2

**FOLLOW-UP ACTION PLAN ON MIDANPIRG/13 ATN/IPS WG/4 AND CNS SG/5 CONCLUSIONS AND DECISIONS**

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p><b>CONCLUSION 13/23: MID IP NETWORK SURVEY</b></p> <p>That, States complete the MID IP Network survey as at <b>Appendix 4.4A</b> to the Report on Agenda Item 4.4 and provide feedback to the ATN-IPS WG/4 meeting.</p>	Implement the Conclusion	ICAO States	State Letter  Completed Survey	May 2012	Actioned
<p><b>CONCLUSION 13/24: DEVELOPMENT OF IP BASED MID NETWORKS</b></p> <p>That, States, that have not yet done so, be urged to:</p> <p>a) develop national plans, in line with the ICAO Manual on the Aeronautical Telecommunication Network (ATN) using Internet Protocol Suite (IPS) Standards and Protocols (Doc 9896), for migration to IPv6 taking the existing IPv4 based aeronautical systems into account;</p> <p>b) consider the use of IPv4/IPv6 protocol translation devices only as a provisional solution during the migration; and</p> <p>c) include a requirement for both IPv4 and IPv6 in their ongoing Air Traffic Services (ATS) Message Handling System (AMHS) implementation programmes in order to ensure seamless transition and interoperability.</p>	Implement the Conclusion	ICAO States	State Letter	Sep. 2012	Completed
<p><b>CONCLUSION 13/25: UPDATE THE AMC SYSTEM</b></p> <p>That, States be urged to keep the data related to their COM CENTER updated in the EUR-AMC system</p>	Implement the Conclusion	ICAO States	State Letter	Sep. 2012	Replaces and superseded by Draft CNS SG5 Conc. 5/2



CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p><b>CONCLUSION 13/26: MID AFTN/CIDIN DIRECTORY</b></p> <p>That, ICAO MD Regional Office:</p> <p>a) take necessary steps with Jordan to populate the MID AFTN/CIDIN Directory in the MID-AMC; and</p> <p>b) post the MID AFTN/CIDIN Directory in the ICAO MID Website.</p>	Implement the Conclusion	ICAO Jordan States	MID Routing Directory in MID AMC	Dec. 2012	Replaces and superseded by Draft CNS SG5 Conc. 5/2
<p><b>CONCLUSION 13/27: MID-ATS MESSAGE MANAGEMENT CENTRE (AMC) PROJECT</b></p> <p>That,</p> <p>a) Jordan complete the development of the MID-AMC;</p> <p>b) ICAO MID Regional Office communicate with EUROCONTROL to provide the necessary support for the project;</p> <p>c) ATN-IPS WG and CNS SG develop the necessary legal framework for the use of the MID-AMC; and</p> <p>d) States be encouraged to use the MID-AMC on trial basis for one year.</p>	Implement the Conclusion	ATN-IPS WG ICAO Jordan States	Operations of MID-AMC  Trial results	Dec. 2012  Apr. 2013	Replaces and superseded by Draft CNS SG5 Conc. 5/2
<p><b>DECISION 13/28: REVISED TOR OF THE ATN-IPS WORKING GROUP</b></p> <p>That, the Terms of Reference (TOR) of the ATN-IPS Working-Group be updated as at <b>Appendix 4.4C</b> to the Report on Agenda Item 4.4.</p>	Implement the work programme of the ATN IPS WG	MIDANPIRG	Updated TOR	Apr. 2012	Completed
<p><b>DECISION 13/29: TERMS OF REFERENCE OF THE CNS SUB-GROUP</b></p> <p>That, the Terms of Reference (TOR) of the CNS SG be updated as at <b>Appendix 4.4D</b> to the Report on Agenda Item 4.4.</p>	Implement the work programme of the CNS SG	MIDANPIRG	Updated TOR and Procedural Handbook	Apr. 2012	To be Replace and superseded By Draft CNS SG5 Dec 5/7

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<p><b>CONCLUSION 13/30: NATIONAL PERFORMANCE FRAMEWORK</b></p> <p>That, States be urged to:</p> <p>a) develop, update and/or complete their National Performance Framework, including the National Performance Framework Forms (PFFs), ensuring the alignment with and support to the regional performance objectives;</p> <p>b) incorporate the agreed MID Region Performance Metrics into their National performance monitoring process; and</p> <p>c) report relevant data necessary for performance monitoring of the air navigation systems to the ICAO MID Regional Office, on a regular basis, with a view to update the Regional PFFs and monitor the MID Region Performance Metrics.</p>	<p>Implement the Conclusion</p>	<p>ICAO States</p>	<p>State Letter Feedback and reports</p>	<p>30 Jun. 2012 On regular basis</p>	<p>Started Development of ANRF</p>
<p><b>CONCLUSION 13/63: ELIMINATION OF AIR NAVIGATION DEFICIENCIES IN THE MID REGION</b></p> <p>That, States be urged to:</p> <p>a) review their respective lists of identified deficiencies, develop associated Corrective Action Plans and forward them to the ICAO MID Regional Office prior to 15 June 2012; and</p> <p>b) use the ICAO MID Air Navigation Deficiency Database (MANDD) for submitting online requests for addition, update, and elimination of air navigation deficiencies, until the official launch of the Centralized Air Navigation Deficiency Database on iSTARS.</p>	<p>Implement the Conclusion</p>	<p>ICAO States</p>	<p>State Letter CAP and necessary updates</p>	<p>15 Jun. 2012</p>	<p>Actioned On going</p>

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
<b>DRAFT CONCLUSION 5/1: MID AIDC IMPLEMENTATION PLAN</b>					
That States, a- support ICAO to organize seminar on implementation of AIDC; b- participate actively the Seminar; and c- with support of ICAO secretariat complete the MID AIDC Implementation Plan.	ATN/IPS WG to start follow-up	ICAO States	Seminar Workshop	Sep 2013	On going
<b>Draft Conclusion 5/2: MID-AMC Operation</b>					
That, a- all MID States start using MID-AMC as of 12 December 2012 and provide feedback to ICAO MID Regional Office and MID-AMC-Project manager; b- States nominate three MID-AMC users; and c- concerned States sign the MOA as at <b>Appendix 3C</b> to the Report on Agenda Item 3 by 1 March 2013		States Jordan DGCA-MID/2			
<b>Draft Decision 5/3: Establishment of MID-AMC Board</b>					
That, MID-AMC Board is established with TOR as at <b>Appendix 3D</b> to the Report on Agenda Item 3.		DGCA-MID/2			
<b>Draft Decision 5/4: Revised List of Task for ATN/IPS WG</b>					
That, the list of tasks of the ATN/IPS Working Group be updated as at <b>Appendix 3F</b> to the Report on Agenda Item 3.		ATN/IPS WG	Revised task list		

ATN/IPS WG/5  
Report on Agenda Item 3

---

**REPORT ON AGENDA ITEM 3: FOLLOW-UP THE PROGRESS OF MID REGION ATS MESSAGE MANAGEMENT CENTRE (MID AMC) PROJECT**

3.1 The meeting recalled that the transition from the Ageing Aeronautical Fixed Telecommunication Network (AFTN) to the AMHS is under way and progressing at a good pace globally and very fast in the MID Region. For the orderly operation of the AMHS on a global scale, it is necessary to coordinate and synchronize the allocation of AMHS addresses. In response to this, ICAO, in cooperation with the European Organisation for the Safety of Air Navigation (EUROCONTROL), has established procedures for the coordination and synchronization of AMHS addresses in the short- to medium-term. ICAO MID Region took the lead for the long-term, by the establishment of MID –AMC Management Centre for the Region and also developed synchronization procedure with the EUROCONTROL.

3.2 The meeting recalled that state-of-the-art ATS Messaging Handling System (AMHS) has been installed and commissioned in most of the MID States, to replace the obsolete AFTN/CIDIN; new International AMHS links replaced AFTN/CIDIN connection. The introduction of AMHS makes the routing update process complicated and the need for an automated tool with centralized management is imperative. In this regards, the European AMC is being used in EUR/NAT Region for ensuring optimum consistent routes. Consequently, MIDANPIRG/12 agreed to establish a similar regional project MID ATS Messaging Management Centre (MID-AMC), financed, hosted and led by Jordan.

3.3 The meeting noted that the MID-AMC Project activities are divided into two phases which correspond to the goals of the project, the first is the development of AMF-I and some AMF-O functions (network inventory, address management), and Phase two focused on the routing function development to fulfill the main objective of the project, and these two phases has been successfully completed and the system has been accepted also trials commenced, the meeting congratulated Jordan for the achievement.

3.4 The meeting was apprised of the agreement between EUROCONTROL Master AMC (EUR-AMC) and MID-AMC, on synchronization protocol procedure including operational and administration issues between the two AMCs. It was noted that EUROCONTROL will no more accept new users from the MID Region and MID –AMC has to create all Regional users.

3.5 The meeting recalled that as a follow-up to MIDANPIRG/13 Conclusion 13/27: *MID-ATS Message Management Centre (AMC) Project* developed Memorandum of Agreement (MOA) and proposed establishment of MID-AMC Board to be responsible for the MID-AMC operation also developed Terms of Reference (TOR) for the MID-AMC Board. The CNS SG/5 Meeting reviewed the MOA and agreed with its content and noted that some MID States already signed the MOA as at **Appendix 3A** to the Report on Agenda Item 3.

3.6 The meeting noted that some States require more time to sign the MOA, although the technical experts are fully supporting the MOA. In order to reflect concerns of some States on the content of the MOA, the CNS SG/5 agreed that since the appropriate process to reflect States concerns on the MOA is to modify the TOR of the MID-AMC Board. Accordingly, the meeting reviewed and updated the TOR of the MID-AMC Board as at **Appendix 3B** to the Report on Agenda Item 3. The meeting agreed that all States concerns on the content of MOA are included in the updated the TOR of the MID-AMC Board.

ATN/IPS WG/5  
Report on Agenda Item 3

---

3.7 The meeting noted that the CNS SG/5 Meeting agreed to Draft Conclusion 5/2 *MID AMC OPERATION* as follows:

*DRAFT CONCLUSION 5/2:            MID-AMC OPERATION*

*That,*

- a) all MID States start using MID-AMC as of 12 December 2012 and provide feedback to ICAO MID Regional Office and MID-AMC-Project manager;*
- b) States nominate three MID-AMC users; and*
- c) concerned States sign the MOA as at **Appendix 3C** to the Report on Agenda Item 3 by 1 March 2013.*

3.8 Based on the above three States registered in MID AMC, the meeting urged States to start using the MID AMC on trial basis even if MOA is not signed. Furthermore, the meeting noted that no feedback received on the use of the MID AMC; consequently the meeting developed feedback form and process as at **Appendix 3C** to the Report on Agenda Item 3.

3.9 The meeting was apprised that the MID AMC web application launched on 12/12/2012 on trial basis, however there is a need to define MID AMC user type since the MID AMC has a lot of functions available, the meeting agreed to the types of the user and their functions along with the procedure for the accreditation as at **Appendix 3D** to the Report on Agenda Item 3 in order to guarantee the confidentiality and integrity of data contained in the MID-AMC database, as it is necessary to grant access rights of a given user category only to people who are duly identified and have the right to view and/or modify MID AMC data.

3.10 The meeting discussed a proposal for the elimination of the MOA and the renaming of the MID AMC, however this was not supported by the meeting and it was agreed that both MOA and AMC board are necessary for the smooth operation of the MID AMC.

3.11 The meeting reviewed and updated the MID AFTN/CIDIN routing directory as at **Appendix 3E** to the Report on Agenda Item 3 and agreed to post the routing directory on the ICAO MID Regional Office website for use by the MID-AMC, also the meeting agreed that the next updates to directory be done online at the MID-AMC according to AIRAC cycle.

3.12 The meeting agreed to the following Draft Conclusions:

*DRAFT CONCLUSION 5/1:            MID-AMC OPERATION*

*That,*

- a) all MID States start using MID-AMC and provide feedback to ICAO MID Regional Office and MID-AMC-Project Manager; and*
- b) concerned States sign the MOA as at **Appendix 3A** to the Report on Agenda Item 3 by 30 June 2013*

ATN/IPS WG/5  
Report on Agenda Item 3

---

**DRAFT CONCLUSION 5/2: MID-AMC USER ACCREDITATION PROCEDURE**

*That, States register users for the MID-AMC according to the accreditation procedure define at **Appendix 3D** to the Report on Agenda Item 3.*

**DRAFT DECISION 5/3: ESTABLISHMENT OF MID-AMC BOARD**

*That, MID-AMC Board is established with TOR as at **Appendix 3B** to the Report on Agenda Item 3.*

3.13 The meeting received online demo on the MID AMC and agreed that the link to the MID AMC be available on the ICAO MID Regional Office, it was noted that most of the participants registered online to the MID-AMC according to the procedure agreed during the meeting.

-----

**Middle East Regional ATS Messaging  
Management Center  
(MID AMC)**

**MEMORANDUM  
OF AGREEMENT**

MEMORANDUM OF  
AGREEMENT

On the establishment, operation and management of the  
Middle East Regional ATS Messaging Management  
Center (MID AMC) fully funded by Jordan

1. PARTIES

1.1 The Parties to this memorandum of agreement are: Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria, UAE and Yemen. and any other ICAO MID Region States

2. AGREEMENT

- CONSIDERING the urgent need to institute a programme, on a regional basis, for a high quality AFS network and efficient data exchange.
- CONSIDERING the Parties' earlier decision that the Middle East Regional ATS Messaging Management Center (MID AMC) will be funded by Jordan.

The Parties have agreed as follows:

1. The Preamble, MIDANPIRG/13 Conclusion 13/27 and CARC's Letter No. 22/1000/11/2926 dated 3/August/2011 hereto shall constitute an integral part of this Memorandum of Agreement.
2. The Parties to this memorandum of agreement, referred to hereunder as Participating States agree to establish the Middle East Regional ATS Messaging Management Center (MID AMC) and undertake to become its members;
3. The MID AMC shall be managed as a Regional programme; shall have legal personality and shall act through the MID AMC Board;
4. The overall objective of the MID AMC is the promotion of efficiency and safety of air navigation in the Middle East Region through the operation and management, on a sound and efficient basis, of a permanent MID Regional ATS Messaging Management Center;
5. The MID AMC Board, in which each Participating State is entitled to appoint one member (technical), shall retain overall direction and responsibility for the supervision and operation of the MID AMC in accordance with the relevant obligations of the Participating States. The Board shall elect its chairman. It shall inter-alia, supervise and direct the MID AMC, follow-up its activities and reports and assign its priorities;
6. The MID AMC's scope, duties and responsibilities will be those agreed by the Board's first meeting and could be revised by the Board. The MID AMC will be assigned clear tasks in a step-by-step approach starting with MID AMC establishment. The MID AMC duties and responsibilities will include, but will not be limited to the following:

Collecting and analyzing ATS Messaging data received from MID States as well as from European AMC;

Establishing a consistency among data from EUROPEAN AMC to the MID AMC and vice versa;

Ensuring the continuous harmonization of data over an AIRAC cycle



Propose optimum routing based one regional change

Create access accounts and authorization according to regional procedure

Create necessary reports and documents

Submit a report to each Board meeting on MID AMC activities;

7. The Participating States have accepted Jordan's offer to host the MID AMC in Jordan to enable the early establishment and functioning of the MID AMC; for which participating States will not be charged
8. Jordan will provide the offices, software, equipment and local personnel needed for the MID AMC operations and pay for the set up of the MID AMC; at no charge to MID States
9. In case of the need for the MID AMC enhancement or addition for any service it will be decided by the board for the requirement and cost which may be borne by Participating States on equal basis ;
10. The MID AMC staff shall be composed of and provided and funded by Jordan:
  1. MID AMC Project Manager (Full Time)
  2. MID AMC Project Assistant (Full Time)
  3. Five MID AMC operators (Full Time)
11. The MID AMC Project Manager shall manage the project on day-to-day basis and effect coordination with the Chairman of the MID AMC Board. He/She shall submit the MID AMC reports to the Board with copies to the ICAO Regional Office in Cairo;
12. This Memorandum of Agreement shall come into effect on the date it has been signed by the Participating States;
13. Any amendment to this Memorandum of Agreement, shall be carried out by the parties to this Memorandum of Agreement;
14. Any dispute arising out of or relating to this Memorandum of Agreement, shall be settled by direct consultation between the Participating States concerned; and within the framework of MIDANPIRG

15. Any Participating State may withdraw from this Memorandum of Agreement by giving a prior written notice of six (6) months to the MID AMC Board. The obligations assumed by the Participating States under this Memorandum of Agreement shall continue to exist after the withdrawal from this Memorandum of Agreement to the extent necessary to permit the orderly finalization of activities, the withdrawal of personnel, the distribution of funds and assets and the settlement of contractual obligations. Additional funds, if necessary, to cover the above mentioned expenditures shall be provided by the Participating States.
16. The hosting of the MID AMC by Jordan may be terminated at the request of Jordan, with two years advance written notification to the MID AMC Board to allow sufficient time for selection of an alternative location and necessary arrangements for setting up a new MID AMC.
17. All correspondence relating to the implementation of this Agreement shall be addressed to:

MID AMC  
Chairman of the MID AMC  
Civil Aviation Regulatory  
Commission P.O. Box 7547  
Amman Jordan

With copy to the:

ICAO Regional Director  
ICAO Middle East Regional Office  
Egyptian Civil Aviation Complex, Airport Road  
P.O Box 85, Airport Post office, Terminal One  
11776, Cairo, Egypt

Agreed on behalf of participating States

<b>State</b>	<b>Signature</b>	<b>Title</b>	<b>date</b>
Bahrain			
Egypt			
Iran			
Iraq			
Jordan			
Kuwait			
Lebanon			
Oman			
Qatar			
Saudi Arabia			
Syria			
UAE			
Yemen			

-----

ATN/IPS WG/5  
Appendix 3B to the Report on Agenda Item 3

---

## MID-AMC BOARD TOR

### 1. TERMS OF REFERENCE (TOR)

1.1 The Terms of Reference of the MID-AMC board are:

- a) to promote the efficiency and safety of aeronautical fixed services in the MID Region through the operation and management, on a sound and efficient basis, of a permanent MID Regional ATS Messaging Management Center (MID-AMC);
- b) foster the implementation of the Air traffic service Message handling service in the MID Region through provision of the guidance materials and running facilitation tools, utilizing the MID-AMC
- c) MID-AMC Board will consist of a focal point from each Participating MID State who would represent the State and acts as the Board Member;
- d) MID AMC Board will be responsible for overall supervision, direction, evaluation of the MID-AMC project and will review/update the MID-AMC work plan whenever required.

1.2 In order to meet the Terms of reference, the MID-AMC board in coordination with ATN-IPS WG will be reporting to MIDANPIRG CNS SG and shall:

- a) Develop a credential procedure for all users on the MID-AMC;
- b) develop and maintain guidance materials for MID-AMC users.
- c) discuss and identify solution for operational problems may be arising.
- d) provide support/guidance to states for AMHS Implementation, and monitor the AMHS activities.
- e) assist and encourage states to conduct trial on Implementation of the ATS extended services, and identify operational requirements.
- f) identify the need for any enhancement for the MID AMC and prepare functional and technical specifications, and define its financial implications;
- g) follow-up on ICAO standards and recommendations on the ATS messaging management

- h) define future liabilities and new participating States and ANSPs
- i) follow-up and review the work of similar groups in other ICAO Regions.

**2. COMPOSITION**

- a) ICAO MID Regional Office;
- b) Members appointed by the States; and
- c) other representatives, who could contribute to the activity of the board, could be invited to participate as observers.

-----

ATN/IPS WG/5  
Appendix 3C to the Report on Agenda Item 3

---

INTERNATIONAL CIVIL AVIATION ORGANIZATION

**MID-AMC System**

**Feedback Form**

Please submit feedback via email to: **admin@MID-AMCicao.int**

or complete electronic form at:

<http://www.midamc/en/EFeedback/NewForm.aspx>

<b>Focal Point Information</b>	
Name*	
Title*	
Organization*	
Telephone	
Fax	
E-mail*	

<b>Feedback Information</b>	
AMC Module*	
reference number	
Website tree	
Brief description of your comment	
comment(s)*	
Detailed explanation if necessary	
Proposed change(s)*	
Reason for the proposed	

-----

ATN/IPS WG/5  
Appendix 3D to the Report on Agenda Item 3

---

**Accreditation of Users**

- There are tentatively three MID-AMC participant types:
  - 1) Operator which is equivalent to AMC Operator
  - 2) User which is equivalent to AMC CCC Operator
  - 3) Read-Only User which is equivalent to AMC Read-Only.
  
- To guarantee the confidentiality and integrity of data contained in the MID AMC database, it is necessary to grant access rights of a given user category only to people who are duly identified and have the right to view and/or modify such data. This process is called accreditation of users, which is defined hereafter for the accreditation of a user in each category:
  - 1) AMC External Operators on European AMC of the MID Region:
    - 1-1 MID AMC Operator transferred those users to MID AMC as MID AMC Users.
    - 1-2 AMC External operator to register online on MID AMC website at [www.midamc.jo](http://www.midamc.jo).
  - 2) New MID AMC Users:
    - 2-1 State to send letter to the CNS officer of ICAO MID office to designate a new MID AMC User.
    - 2-2 New MID AMC User to register online on MID AMC website at [www.midamc.jo](http://www.midamc.jo).
    - 2-3 MID AMC Operator coordinate with the CNS officer to approve the request in (2-2).
  - 3) AMC Read-Only Users on European AMC of the MID Region:
    - 3-1 MID AMC Operator transferred those users to MID AMC as MID AMC Read-only Users.
    - 3-2 AMC Read-only users to register online on MID AMC website at [www.midamc.jo](http://www.midamc.jo) .
  - 4) New MID AMC Read-only User:
    - 4-1 New MID AMC Read-Only User to register online on MID AMC website at [www.midamc.jo](http://www.midamc.jo).
    - 4-2 MID AMC Operator coordinate with the MID AMC User of the corresponding COM center (if any) Or with the CNS officer to approve the request in (4-1).

5) MID AMC Operator Selection:

The MID AMC Operator is responsible for overall operation of the AMC and of associated procedures. Two Operators are selected every year, a main and a backup MID AMC Operator.

-----

ATN-IPS WG/5  
Report on Agenda Item 4

---

**REPORT ON AGENDA ITEM 4: REVIEW AND UPDATE OF MID ATN PLANS AND IMPLEMENTATION ISSUES**

***MID IP NETWORK***

4.1 The meeting noted that the PAN European Network Service (PENS) implemented in Europe is a common facility that allows ANSPs two different IP interconnection possibilities. In cases where the ANSPs have their own IP networks, they can connect their national IP networks to PENS. However, in other cases where the ANSPs do not have their own IP network, the PENS project can install an access point, consisting of a PENS router, at each location where an IP connection needs to be implemented, in order to provide connectivity with the PENS network. Furthermore, the meeting was informed that other ICAO Regions are planning for implementing IP networks.

4.2 The meeting noted that MIDANPIRG/13 was apprised that the complete implementation of IPv6 will take time and consequently, there will be a long period for both protocols IPv4 and IPv6 to co-exist. The meeting agreed that careful attention to the current implementation of AFTN, CIDIN and ISO/OSI based ATN is required. Accordingly, the provisions for the AFTN, CIDIN, and ISO/OSI should continue to be developed to secure these implementations. Furthermore, the meeting agreed that the MID ATN implementation should take place on the basis of regionally agreed requirements, taking into consideration, the System Wide Information Management (SWIM) concept and any other new developments.

4.3 The meeting recalled MIDANPIRG/13 agreement for the development of the MID IP Network, where it was agreed as a first step that an IP Network survey be conducted, the meeting consolidated and analyzed the replies of the survey as at **Appendix 4A** to the Report on Agenda Item 4.

4.4 The meeting reviewed the adopted IP addressing plans, for the ICAO APAC and CAR/SAM Regions based on IPv4, and considering migration to IPv6. Considering the need to migrate AFTN to AMHS and establishment of MID IP Network the meeting developed IPv4 address plan as at **Appendix 4B** to the Report on Agenda Item 4 which is considered sufficient to meet the requirements of ground-ground communication in the Region for short-to-medium term.

4.5 Furthermore, the meeting recalled, that it was agreed that the MID ATN implementation should take place on the basis of regionally agreed requirements, specially the MID IP Network taking into consideration, the System Wide Information Management (SWIM) concept along with Information Management Service (IMS) implementation as indicated in roadmap calling for IMS environment and the IMS/SWIM Operational Concept that need to be developed to specify the messages distribution and operational requirements.

4.6 The meeting noted that SWIM is listed in Block 1 (target timeline for implementation starting from 2018), in the ASBU concept introduced by ICAO. SWIM has close relation with ASBU module B0-30 which is being introduced starting from 2013. The CNS SG/5 Meeting agreed in principle on the regional approach in planning for the implementation of SWIM, and identified the need for a study on an appropriate network to support SWIM including possibility of using public internet and/or using a common network service provider, where it is to be noted that the SWIM concept is huge and beyond the scope ATN/IPS WG, as it incorporates ATM, AIM, AGA and CNS Infrastructure and not only the network.



ATN-IPS WG/5  
Report on Agenda Item 4

---

4.7 The meeting recognized the increasing important role of the public internet that is played in the provision of MET and digital NOTAM information in lieu of dedicated circuits/links, therefore, the need for a study was identified for an appropriate network to support SWIM including possibility of using public internet and/or using a common network service provider. Accordingly, the CNS SG/5 Meeting recommended that a study of an IP based network be conducted in order to support SWIM as one of the tasks for ATN/IPS WG. The initial defined activity which should be performed is to incorporate SWIM into the ATN/AMHS Infrastructure.

4.8 Based on the above, the meeting agreed that a group of experts start the work on the study for the establishment of MID IP Network, the study group will be composed of the following experts: Bahrain (Yassin), Egypt (Khaled), Jordan (Mona), Saudi Arabia (Abdulla), Sudan (Mubark), UAE (Hamad) and ICAO-CNS Officer. The group will work using electronic means (emails, net meetings etc.)

4.9 With regard to the ATN/IPS WG/4 proposal for organizing MID-SWIM Workshop, the meeting noted that ICAO MID Regional Office is planning to hold ICAO EUR/MID AIM/SWIM Seminar in Istanbul from 14 to 17 May 2013. Accordingly, the meeting encouraged CNS experts and engineers to participate actively in this seminar.

#### ***AIDC IMPLEMENTATION***

4.10 The meeting noted that MIDANPIG/13 reviewed the operational improvements contained in the Aviation System Block Upgrades (ASBU) Working Document and agreed to the need of identification of those operational improvements which are of relevance to the MID Region. However, it was highlighted that the whole concept of ASBU will be finalized by the AN-Conf/12 and accordingly MIDANPIRG/13 Meeting supported the following operational improvement identified and agreed that the MIDANPIRG subsidiary bodies, further review them taking into consideration the outcome of the AN-Conf/12:

- Improved Airport Accessibility
- Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration - AIDC
- Service Improvement through Digital Aeronautical Information Management
- Improved Operations through Enhanced En-Route Trajectories
- Improved Flexibility and Efficiency in Descent Profiles (CDOs)
- Improved Flexibility and Efficiency in Departure Profiles
- Improved Runway Safety (A-SMGCS)
- Improved Airport Operations through A-CDM
- Improved access to Optimum Flight Levels through Climb/Descent Procedures using ADS-B

4.11 The meeting noted that AN Conf/12, discussed the revised Draft Fourth Edition of the Global Air Navigation Plan (Doc 9750, GANP), and noted that this version builds on past planning documents in that it provides a global planning framework which, among other things, provides a timeline for which future improvements can be implemented by States in accordance with their needs. In addition, it identifies the need for the development of standards and recommended practices, regulatory requirements, procedures and technology associated with the Aviation System Block Upgrades (ASBU). The ASBUs are supplemented by communications, navigation, surveillance (CNS), avionics and information management roadmaps. High-level impediments to implementation such as cyber security were identified and considered during the AN Conf/12 discussions. Arrangements to ensure the periodic update of the ASBUs and roadmaps on a rolling fifteen-year planning horizon were discussed.

IPS WG/5  
Report on Agenda Item 4

---

4.12 The meeting further noted that AN Conf/12 agreed that the ASBUs and associated technology roadmaps were an integral part of the GANP and a valuable implementation tool kit. Furthermore, AN Conf/12 agreed that the policy and associated principles in the GANP were fundamental to long-term planning and therefore put forth a significant effort in establishing high-level principles to guide development of the policy.

4.13 Based on the above, the meeting recalled that the ATN/IPS WG/4 discussed the operational improvements related ASBU module B0-25. Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration and agreed to support the implementation of the ATS Inter-Facility Data Communication (AIDC) in the Region utilizing the advanced Ground-Ground infrastructure, accordingly the ATN/IPS WG/4 Meeting developed the draft structure for AIDC Implementation Plan which was reviewed by the CNS SG/5 Meeting where it was indicated that since AIDC has a lot of operational messages the CNS/ATM/IC SG need to review this plan and the Interface Control Document (ICD) for MID Region.

4.14 The CNS SG/5 Meeting requested all States to provide their feedback and tasked the ATN-IPS WG/5 Meeting to consolidate the feedback and present them to the Seminar on implementation of AIDC that will be held in June 2013 and to next meeting of CNS/ATM/IC Sub-Group for final review and submittal to MIDANPIRG/14 for endorsement. Accordingly, the CNS SG/5 Meeting agreed to the following Draft Conclusion:

*DRAFT CONCLUSION 5/1: MID AIDC IMPLEMENTATION PLAN*

*That States,*

- a) support ICAO to organize seminar on implementation of AIDC;
- b) *participate actively the Seminar; and*
- c) *with support of ICAO secretariat complete the MID AIDC Implementation Plan.*

4.15 The meeting consulted the ASBU document which provides the details for the implementation of module B0-25 AIDC as defined by the ICAO Manual of Air Traffic Services Data Link Applications (Doc 9694).

4.16 Based on the operational requirements, the meeting considered availability and capacity of the existing regional telecommunication network for the suitability of implementing AIDC, and updated the MID ATN TABLE CNS 1C of the MID FASID Doc 9708. The meeting recommended that a review of the AIDC messages defined in the PANS-ATM and the ICD document should be conducted, in order to complete and finalize the AIDC implementation activities, including carrying out an interface and technical interconnection analysis for the identified implementation between ATS Units. The meeting developed the ATS unit capabilities and States readiness as at **Appendix 4C** to the Report on Agenda Item 4. The meeting then reviewed and updated the Draft MID AIDC implementation plan as at **Appendix 4D** to the Report on Agenda Item 4 adding to it new version which needs to be further brainstormed at the AIDC Seminar in September 2013.

4.17 Based on the analysis carried out during the meeting it was noted that the majority of States in the MID Region have either implemented OLDI or are planning to implement OLDI and have no intention of using only AIDC. Therefore, the meeting agreed that OLDI implementation should be considered and accepted as Regional variation of AIDC implementation as was the case in the other regions.

ATN-IPS WG/5  
Report on Agenda Item 4

---

4.18 The meeting further agreed that if both AIDC and OLDI are implemented, then it will be a bilateral issue and some States that are interfacing with adjacent Regions may require to support and implement dual capabilities (AIDC and OLDI).

4.19 The meeting was informed about harmonization efforts between NAT and ASIAPAC and now both regions are working on a consolidated AIDC guidance material, where ICAO Inter-Regional AIDC Task Force (IRAIDCTF/1) was established and held its First Meeting in January 2013 with the objective to review the consolidated draft version 0.4 of the Pan Regional ICD for AIDC. It was also indicated that eastern part of the EUR may select AIDC and this would ease communications along crosspolars and transsiberian routes in particular, while the western EUR OLDI will continue to use OLDI.

4.20 The meeting received presentation from UAE on OLDI implementation in UAE highlighting the OLDI vs AIDC. It was noted that AIDC runs on ATN (AFTN, could migrate to AMHS) and OLDI require an X25 and/or IP network.

***ATN FASID PART IN MID ANP-FASID DOC 9708 IMPLEMENTATION***

4.21 The meeting recalled that regional planning and implementation process is facilitated through formulation of regional Air Navigation Plans (ANPs) which are developed and maintained through the Planning and Implementation Regional Groups (PIRGs).

4.22 The meeting recalled that MIDANPIRG/12, through Decision 12/49, recognized the need for a complete review of both the content and format of the MID Basic ANP and FASID. The need to evolve the current ANPs to a new web-based format (eANPs) was also underlined.

4.23 The meeting noted that MIDANPIRG/13 recognized that the task requested by MIDANPIRG through Decision 12/49 is huge and challenging. Accordingly, MIDANPIRG/13 meeting agreed to the establishment of an Ad-hoc Working Group tasked with the development of a revised version of the MID ANP (both Basic ANP and FASID), under Decision 13/32:

*DECISION 13/32: ESTABLISHMENT OF THE MID AIR NAVIGATION PLAN  
AD-HOC WORKING GROUP (ANP WG)*

*That, the MID Air Navigation Plan Ad-hoc Working Group (ANP WG) be established to fulfill the requirements set up by MIDANPIRG through Decision 12/49.*

4.24 The meeting noted that the *Global Air Navigation Plan* (Doc 9750, GANP) and its supporting concepts including the ASBUs, the technology roadmaps and a regional planning framework and associated metrics, along with the importance of adequate frequency spectrum to support the ASBUs, were discussed during the AN-Conf/12, and the following recommendations accepted by the conference:

*Recommendation 1/1 – The Draft Fourth Edition of the Global Air Navigation Plan  
(Doc 9750, GANP)*

*That States:*

- a) agree in-principle, with the inclusion of high level policy principles and other proposed improvements made at this conference, with the updated Draft Fourth Edition of the GANP; and*

IPS WG/5  
Report on Agenda Item 4

---

- b) *should have the opportunity to provide any final comments on the updated Draft GANP to ICAO before it is considered by the ICAO Assembly in 2013.*

*That ICAO:*

- c) *convene a symposium in 2014 where interested stakeholders will be invited to join together to provide end-to-end system demonstrations of New Air Traffic Management (ATM) concepts;*
- d) *develop financial policies which support efficient acquisition and implementation of global air navigation services infrastructure and aircraft equipage;*
- e) *taking a total systems and performance-based approach, create a Standards and Recommended Practices development plan for the Aviation System Block Upgrades including the establishment of agreed global priorities between the different blocks and modules;*
- f) *define a stable and efficient process for endorsement by the 38th Session of the Assembly, for updating the GANP that ensures stability in module timelines for any future updates; and*
- g) *ensure that the nature and status of the planning information in the various documents pertaining to the GANP are consistent and complete and allow due account to be taken of the inputs from ATM research, development and deployment programmes.*

4.25 The meeting noted that with regard to Regional Air Navigation Plans (ANPs) and for the process of aligning the regional ANPs with the GANP. AN-Conf/12 agreed that PIRGs should focus initially on implementing ASBU Block 0 Modules and finalize the development of their ASBU aligned regional plans by May 2014. Furthermore, as a means of interregional harmonization for ASBU implementation, AN-Conf/12 agreed to use the various means available to address impediments, including the All Planning and Implementation Regional Group (ALLPIRG) meetings. In this regard, the AN-Conf/12 welcomed the proposal of ICAO to convene an ALLPIRG meeting in March 2013. In order to identify and resolve any roadblocks for ASBU implementation, the AN-Conf/12 encouraged States and PIRGs to use the Air Navigation Report Form (ANRF) which was developed to identify such issues.

4.26 Based on all the above, the meeting reviewed and updated the communications part of the MID CNS FASID tables as at **Appendix 4E** to the Report on Agenda Item 4, as for the MID Regional ATN Planning and Implementation Document it was agreed to review and update during next meeting.

4.27 The meeting also agreed with CNS SG/5 Meeting views that the FASID tables related to AFTN, AMHS, Circuit could be produced by the MID-AMC and to be directly updated on the AMC and reproduced when requested. The meeting urged States to participate actively in the work of the ANP WG Meeting planned to be held 27-29 May 2013 at the ICAO MID Regional Office in Cairo.

ATN-IPS WG/5  
Report on Agenda Item 4

---

4.28 The meeting noted that Egypt is moving from old analogue Communication Aeronautical Telecommunication Infrastructure to the new IP based infrastructures which provides a lower cost, more reliable, and high performance network that can be used for both voice and data simultaneously and requested the following States Lebanon and Sudan to upgrade the circuits and implement AMHS.

-----

ATN/IPS WG/5  
Appendix 4A to the Report on Agenda Item 4

State Bahrain (Manama)

State	Speed	ISP	IP Address	Net Mask	Router Type	Data end user interface	Applications in use
Riyadh	64k	Batelco	10.61.11.12	255.255.255.252	Motorola Vangurd 6435	FXO/FXS	Voice
Dammam	64k	Batelco	10.61.11.44	255.255.255.252	Motorola Vangurd 6435	FXO/FXS	Voice
Tehran	64k	Batelco	172.16.10.2	255.255.255.0	Cisco2800	Serial	AFTN
						FXO/FXS	Voice
Kuwait	128k	Batelco	10.61.11.8	255.255.255.252	Motorola Vangurd 6435	Serial	AFTN-Radar
						FXO/FXS	Voice
Jeddah	64k	Batelco	10.61.11.48	255.255.255.252	Motorola Vangurd 6435	Serial	CIDIN
						FXO/FXS	Voice
Doha-1	64k	Batelco	10.61.11.32	255.255.255.252	Motorola Vangurd 6455	Serial	Radar
						FXO/FXS	Voice
Doha-2	64k	Batelco	10.61.11.56	255.255.255.252	Motorola Vangurd 6455	Serial	AFTN
						FXO/FXS	Voice
AbuDhabi-1	64k	Batelco	10.61.11.12	255.255.255.252	Motorola Vangurd 6435	Serial	Radar
						FXO/FXS	Voice
AbuDhabi-2	64k	Batelco	10.61.11.16	255.255.255.252	Motorola Vangurd 6435	Serial	CIDIN
						FXO/FXS	Voice

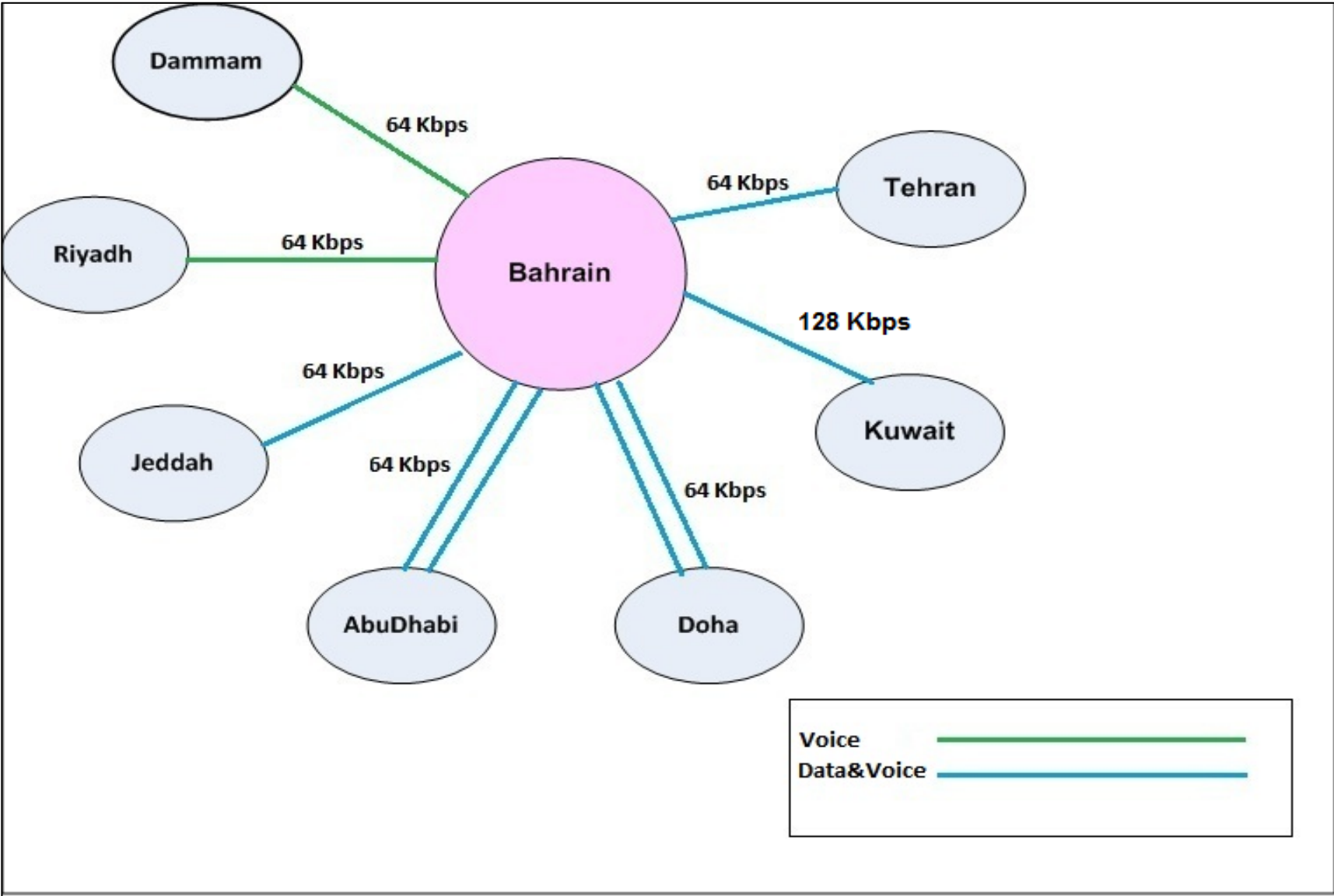


Figure 1: Bahrain Circuit Diagram

State Egypt (Cairo)

State	Speed	ISP	IP Address	Net Mask	Router Type	Data end user interface	Applications in use
Amman	64k	Telecom Egypt (ATM)	10.10.10.2	255.255.255.0	Motorola Vangurd 6800	IP	AMHS
			192.168.12.7	255.255.255.0		FXO/FXS	Voice
Jeddah1	64k	Telecom Egypt (ATM)	192.168.80.2	255.255.255.0	Cisco2800	FXO/FXS	Voice
						IP	OLDI, Radar
Jeddah2	128k	Telecom Egypt (ATM)	10.10.10.1	255.255.255.0	Motorola Vangurd 6455	IP	AMHS
						FXO/FXS	Voice
Riyadh	64k	Telecom Egypt (ATM)	192.168.80.2	255.255.255.0	Cisco2800	FXO/FXS	Voice
Tripoli	64k	Telecom Egypt (ATM)	10.10.10.1	255.255.255.0	Cisco1700	Serial	AFTN

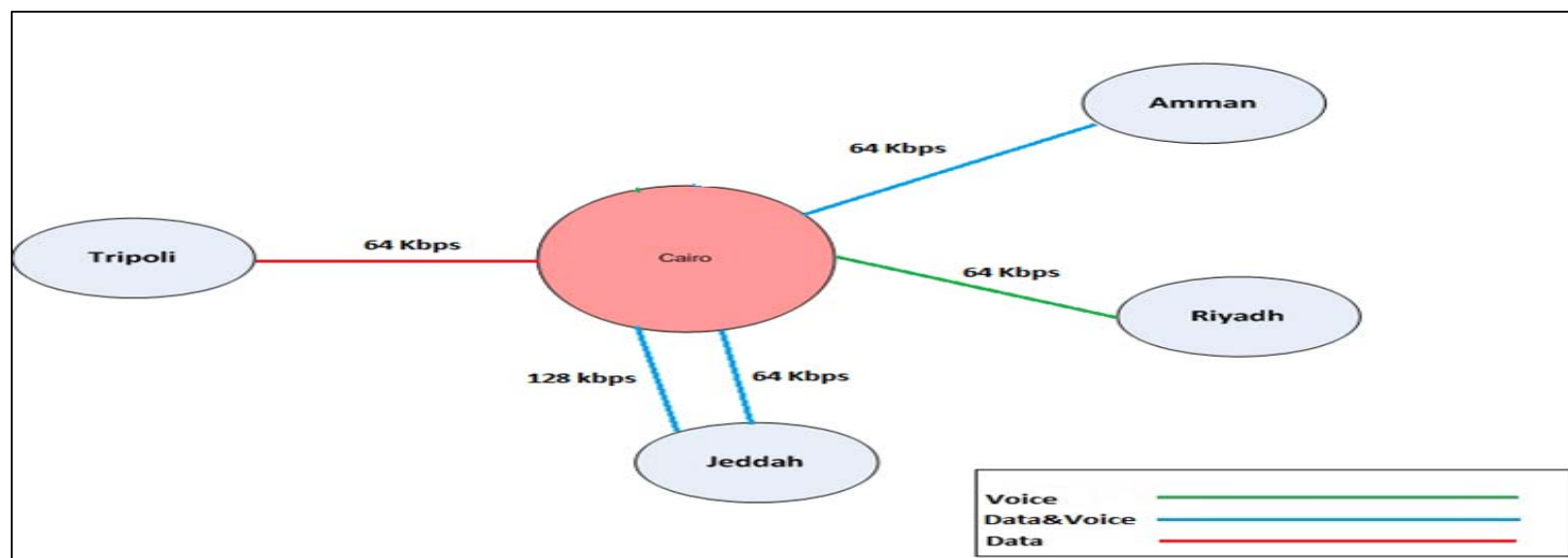


Figure 2: Cairo Circuit Diagram



State Saudi Arabia (Jeddah)

State	Speed	ISP	IP Address	Net Mask	Router Type	Data end user interface	Applications in use
Cairo1	128k	N/A	192.168.12.0	255.255.255.0	Motorola Vangurd 6455	IP	AHHS
						FXO/FXS	Voice
Cairo2	64k	N/A	N/A	N/A	Motorola Vangurd 6455	IP	AMHS
					Motorola Vangurd 6455	FXO/FXS	Voice
Amman	64k	N/A	192.168.12.0	255.255.255.0	Motorola Vangurd 6455	IP	AHHS
						FXO/FXS	Voice
Muscat	64k	N/A	192.168.12.0	255.255.255.0	Cisco 2811	IP	AHHS
						FXO/FXS	Voice
Manama	64k	N/A	TBD	TBD	Motorola Vangurd 6435	Serial	CIDIN
						FXO/FXS	Voice

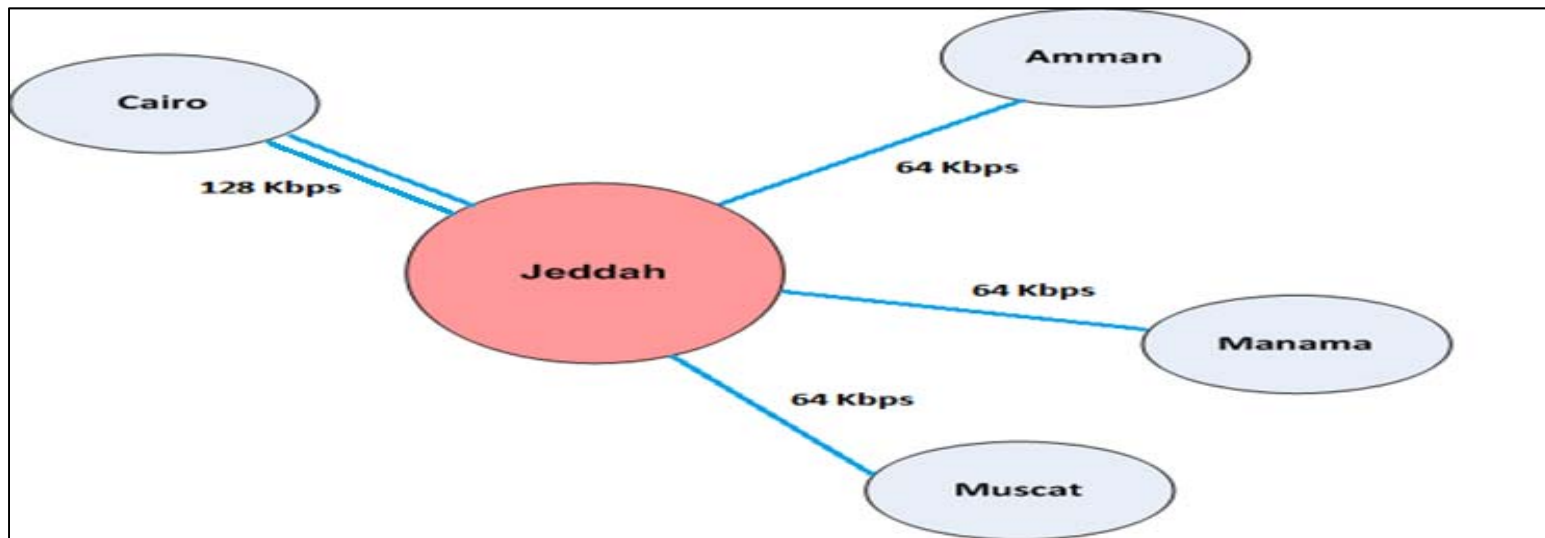


Figure 3: Jeddah Circuit Diagram

State IRAN(Tehran)

State	Speed	ISP	IP Address	Net Mask	Router Type	Data end user interface	Applications in use
Manama	64k	Iran PPT	172.16.10.2	255.255.255.0	Cisco2811	Serial	AFTN
						FXO/FXS	Voice
Baghdad	32k	Iran PPT	192.168.191.14	255.255.255.0	Cisco2811	FXO/FXS	Voice
Kuwait	64k	Iran PPT	172.16.12.0	255.255.255.0	Cisco2811	Serial	AFTN
						FXO/FXS	Voice
Bahrain	64k	Iran PPT	172.16.12.0	255.255.255.0	Cisco2811	Serial	AFTN
						FXO/FXS	Voice
Abu Dhabi *	64k	Iran PPT	To be determined	To be determined	Cisco2811	Serial	AFTN
						FXO/FXS	Voice
Muscat *	64k	Iran PPT	To be determined	To be determined	Cisco2811	Serial	AFTN
						FXO/FXS	Voice

**Remarks:** \* The lines will be established by end of July, 2012

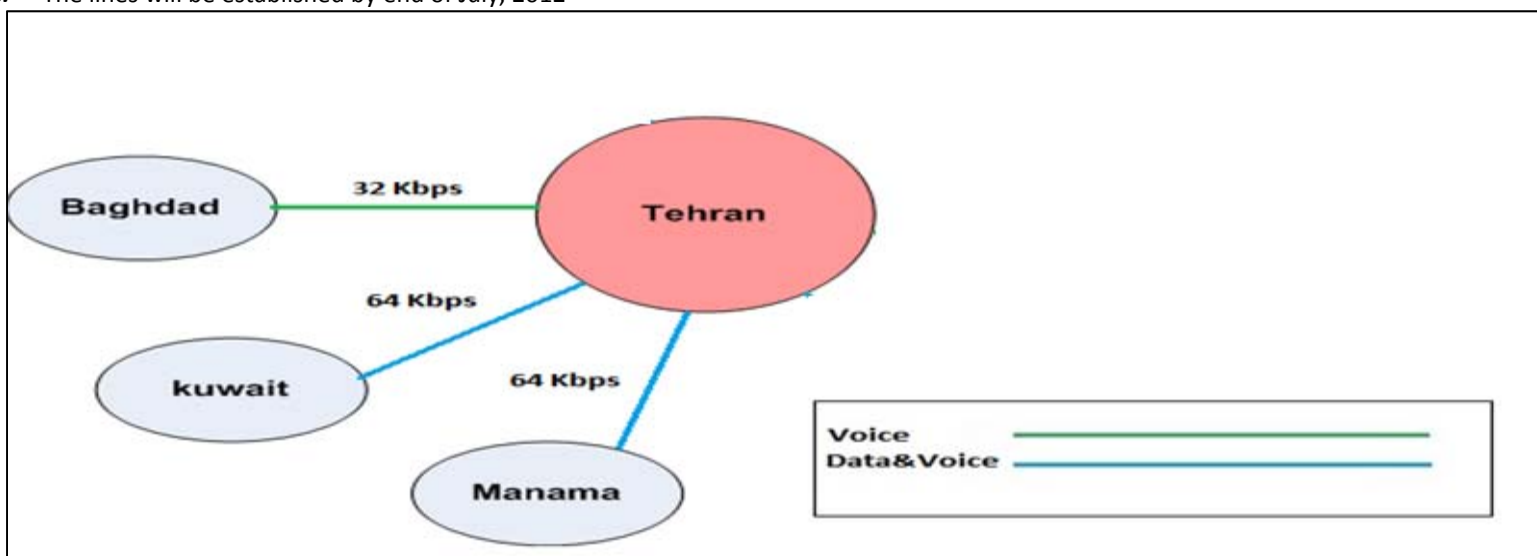


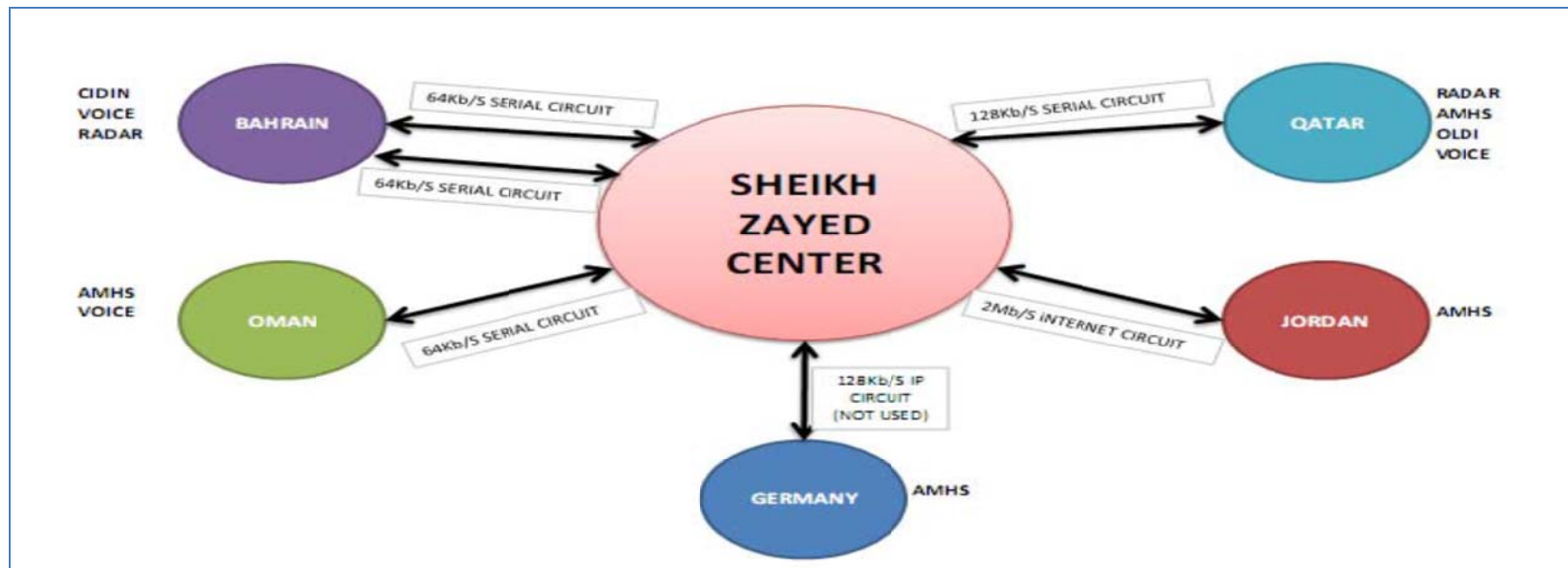
Figure 4: Tehran Circuit diagram

State UAE (Abu Dhabi)

State	Speed	ISP	IP Address	Net Mask	Router Type	Data end user interface	Applications in use
Bahrain1	64K	Etisalat	N/A	N/A	Motorola Vangurd 6455	Serial	Radar
						FXO/FXS	Voice
Bahrain2	64K	Etisalat	N/A	N/A	Motorola Vangurd 6455	Serial	AFTN/CIDIN
						FXO/FXS	Voice
Oman	64K	Etisalat	192.168.130.0	255.255.255.0	Motorola Vangurd 6455	Ethernet	AMHS
						FXO/FXS	Voice
Qatar	128K	Etisalat	192.168.131.0	255.255.255.0	Motorola Vangurd 6435	Ethernet	AMHS/OLDI
						FXO/FXS	Voice
Amman**	N/A	Etisalat	94.56.192.202	255.255.255.0	Fortigate 110C firewall	Ethernet	AMHS

**Remarks:** \* The IP addresses for Bahrain links is configured by ISP and not identified on UAE side.

\*\* The link type between Jordan and Abu Dhabi is over public internet (VPN)



State Kuwait (Kuwait)

State	Speed	ISP	IP Address	Net Mask	Router Type	Data end user interface	Applications in use
Beirut	64K	Qualitynet	--	--	Motorola Modem 3460	N/A	AFTN
Doha	64K	Qualitynet	--	--	Motorola Modem 3460	N/A	AFTN
Tehran	64K	Qualitynet	172.16.12.2	255.255.255.252	Cisco 2800	N/A	AFTN-Voice
Damascus	64K	Qualitynet	--	--	Motorola Modem 3460	N/A	AFTN
Bahrain	128K	Qualitynet	--	--	Motorola Vanguard 6455	N/A	AFTN, Radar Voice
Baghdad	64K	Qualitynet	192.168..0.160	255.255.255.0	Motorola Modem 3460	N/A	AFTN-Voice

**Remarks:**

- The connectivity for circuits (Beirut, Doha, Damascus, Karachi and Bahrain) is pure layer 2 there is no IP configuration on these circuits.
- For Tehran circuit there is IP configuration on the WAN side 172.16.12.2/30 (between Qualitynet and Tehran provider), but there is no IP configuration between Qualitynet and DGCA Kuwait.

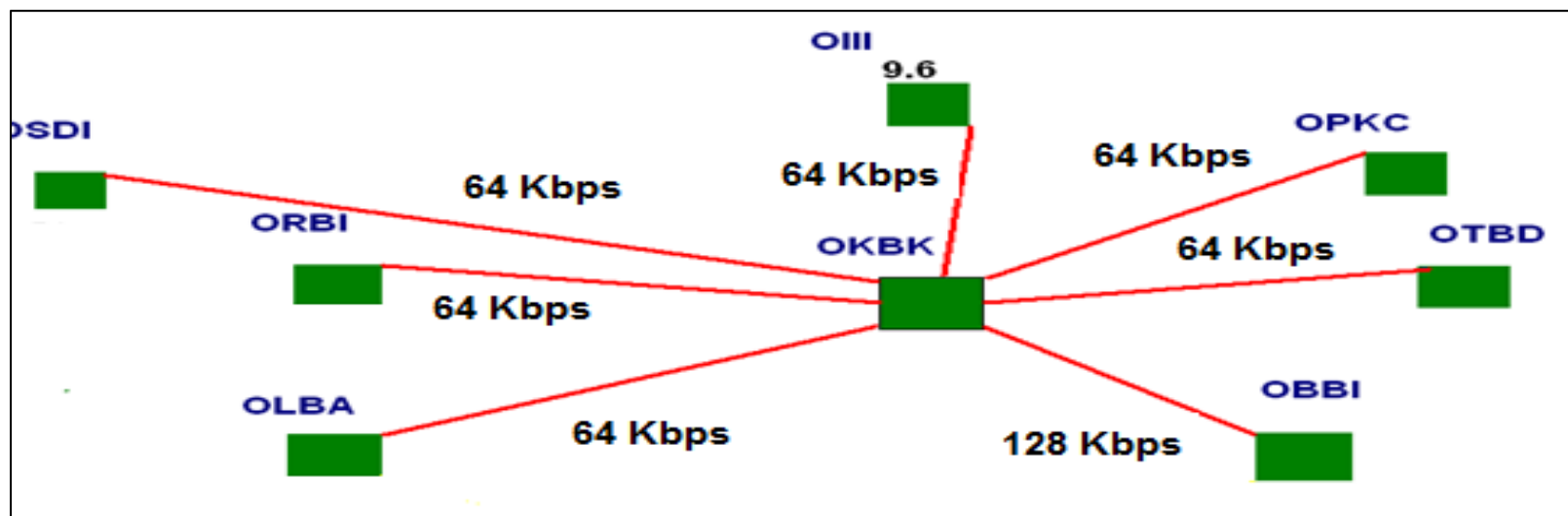


Figure 6: Kuwait Circuit Diagram

State Jordan (Amman)

State	Speed	ISP	IP Address	Net Mask	Router Type	Data end user interface	Applications in use
Cairo	64k	N/A	10.10.10.1	255.255.255.0	Vanguard	N/A	AMHS
						FXO/FXS	Voice
Jeddah	64k	N/A	10.10.10.1	255.255.255.0	Vanguard	N/A	AMHS
						FXO/FXS	Voice
Abu Dhabi*	2M	NITC	193.188.93.19	255.255.255.0	Cisco 5510	N/A	AMHS

\* *The* link type between Jordan and Abu Dhabi is over public internet (VPN)

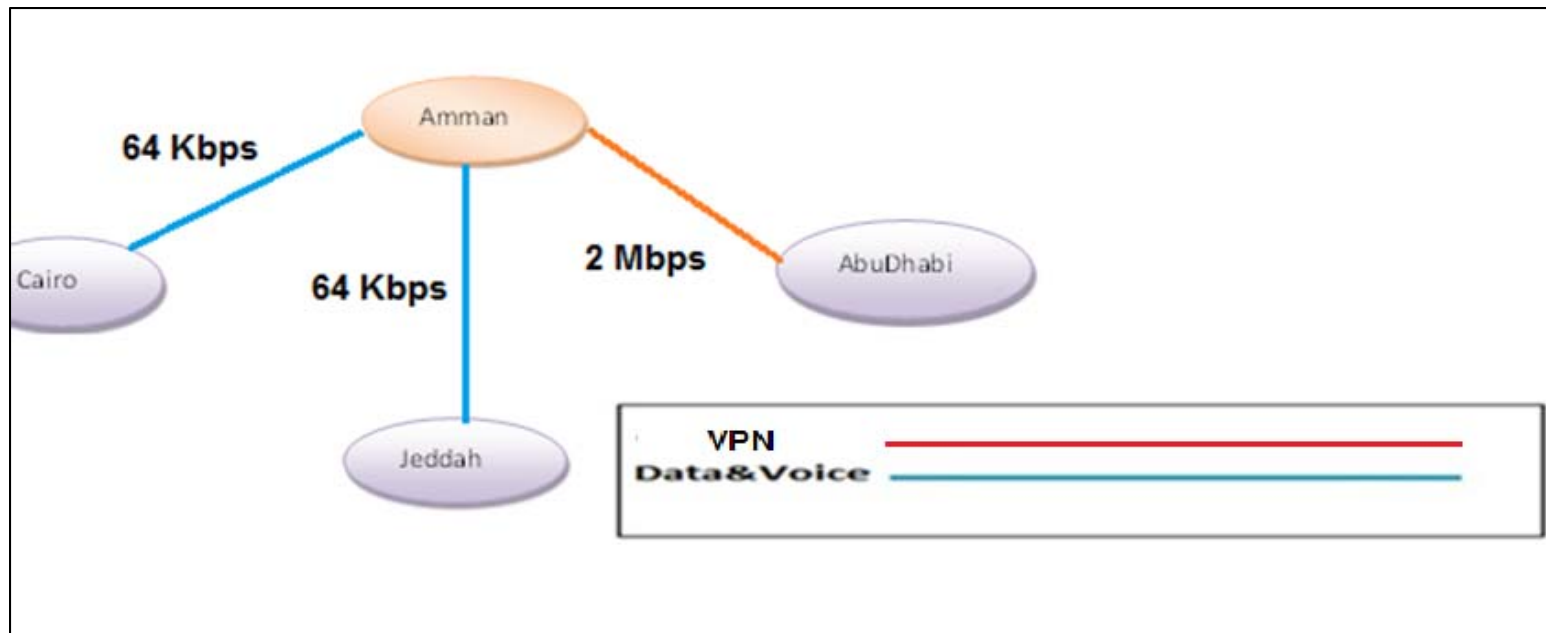


Figure 7: Jordan Circuit Diagram

State    Iraq (Baghdad)

State	Speed	ISP	IP Address	Net Mask	Router Type	Data end user interface	Applications in use
Iran	32k	Passcom	192.168.191.10	255.255.255.0	NDsatcom SkyWan 5000	FXS	Voice
Kuwait	64k	Passcom	192.168.191.2	255.255.255.0	NDsatcom SkyWan 5000	FXS	Voice
			192.168.0.60	255.255.255.0		Ethernet	AFTN

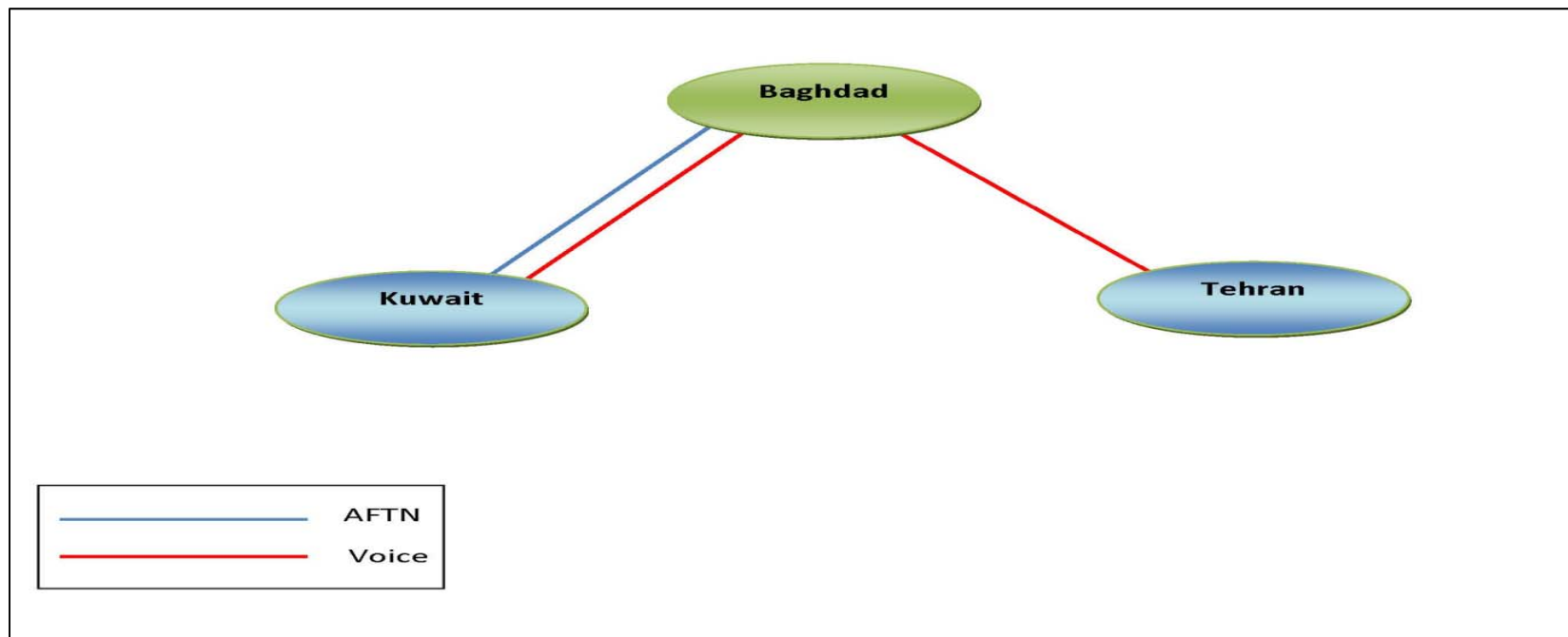


Figure 8: Iraq Circuit Diagram

State QATAR (Doha)

State	Speed	ISP	IP Address	Net Mask	Router Type	Data end user interface	Applications in use
Abu Dhabi	128k	QTEL	200.200.200.x	255.255.255.252	Motorola Vanguard 6455	serial	AFTN, Radar
						FXO/FXS	Voice
Kuwait	64 k	QTEL	N/A	N/A	New Bridge Modem 2602	Serial	AFTN
Bahrain	64 k	QTEL	N/A	N/A	Motorola Vanguard 6840	serial	AFTN, Radar
						FXO/FXS	AFTN, Radar
Bahrain	64 k	QTEL	N/A	N/A	Motorola Vanguard 6840	FXO/FXS	Voice

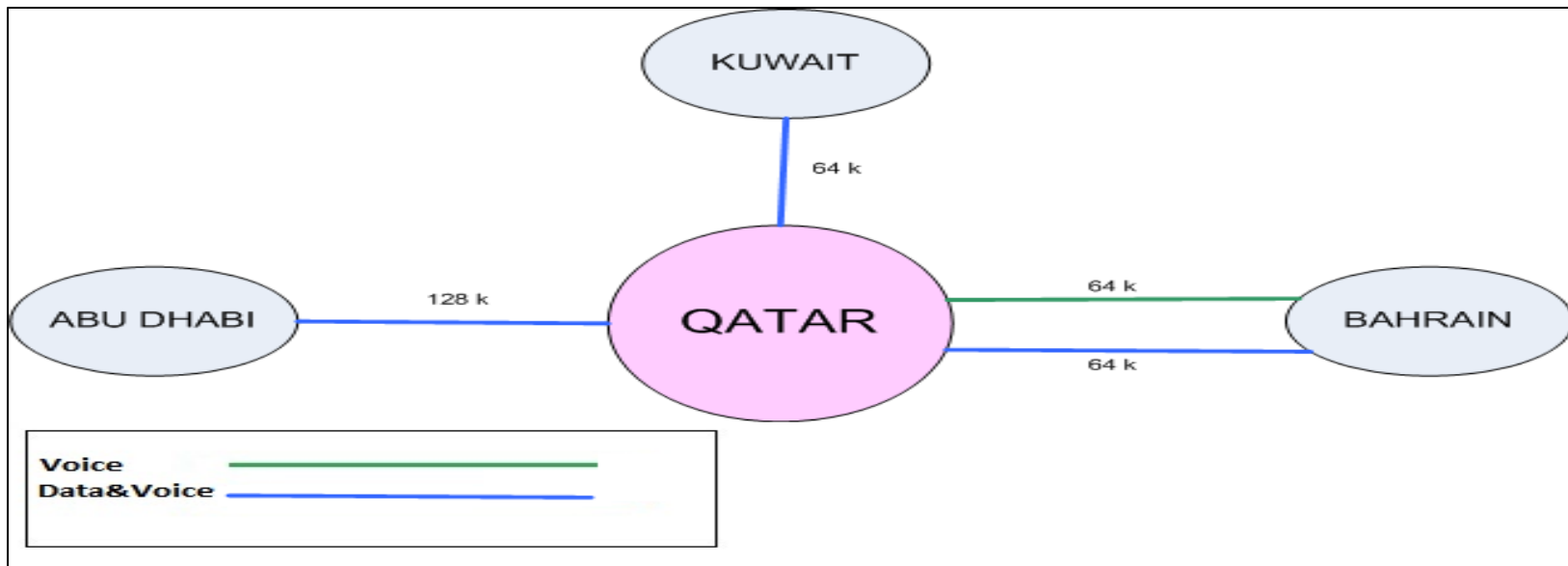


Figure 9: Qatar Circuit Diagram

State OMAN (Muscat)

State	Speed	ISP	IP Address	Net Mask	Router Type	Data end user interface	Applications in use
Abu Dhabi	64 k	OMANTEL	192.168.12.142	255.255.255.0	Motorola Vanguard 6455	serial	AFTN, AMHS
						FXO/FXS	Voice
JEDDAH	64 k	OMANTEL	10.10.10.1	255.255.255.0	Cisco 2800	serial	AFTN, AMHS
						FXO/FXS	Voice
Bahrain	64 k	OMANTEL	192.168.30.1	255.255.255.0	Cisco 2800	serial	AFTN, Radar
						FXO/FXS	AFTN, Radar
Iran	64 k	OMANTEL	172.16.14.0	255.255.255.252	Cisco 2800	FXO/FXS	Voice

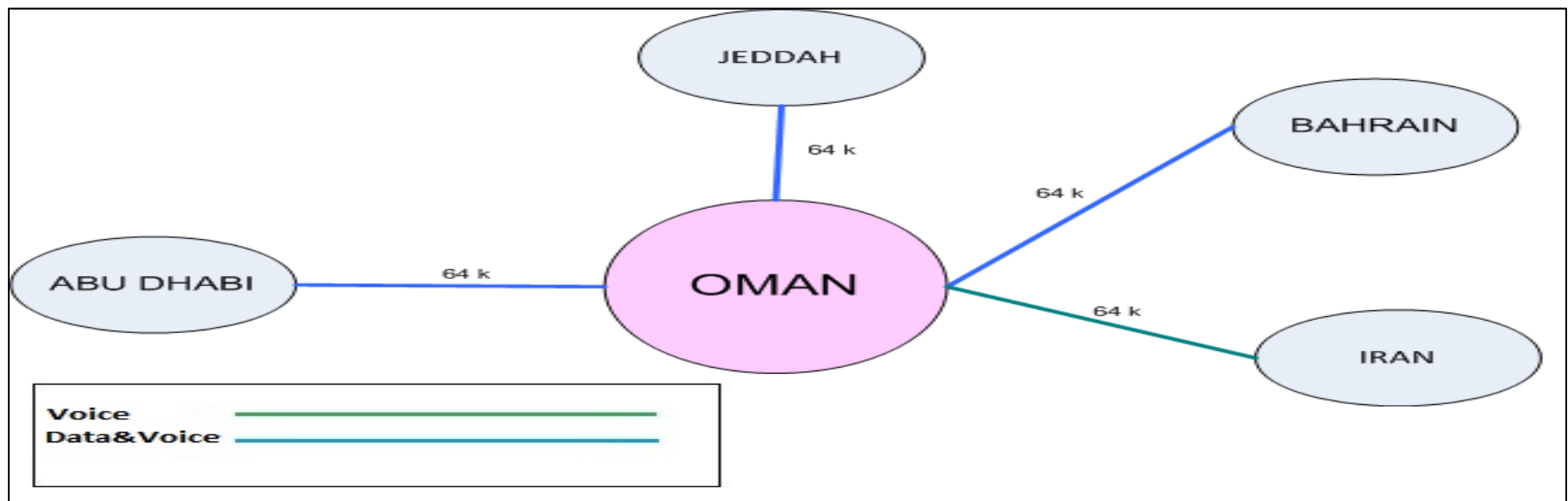


Figure 10: Oman Circuit Diagram



Remark: After conducting the IP network Survey, *Common infrastructure characteristics in all states have been found as follows:*

- ***Lebanon is in process of migration three circuits to IP networks (Kuwait, Bahrain, and Jeddah).***
- *Libya, Sudan, Syria and Yemen do not have IP circuits implemented*
- *Security Measure: Not implemented\**
- *Voice interfaces: FXO/FXS*
- *Voice Protocol Supported: SIP,H.323*
- *All IP circuits is using IPv4*
- *Link Type: Leased Line.*
- *Router interfaces: Async Serial, Sync Serial ,Ethernet*
- \* *Jordan has a firewall device CISCO ASA5510 for Abu Dhabi link (VPN)*

-----

ATN/IPS WG/5  
 Appendix 4B to the Report on Agenda Item 4

---

**THE PROPOSED IPv4 ADDRESS PLAN for MID REGION**

**Introduction**

The IPv4 address scheme is proposed by the Caribbean and South American Regional for its ATN/IPS Network. The MID Region’s plan was also proposed by the Caribbean and South American region as part of their global IPv4 addressing assignment. The MID Region is requested to review this proposed IP addressing assignment for consideration and adoption.

**Objectives**

This document is meant to describe the addressing plan for IPv4 addresses throughout the MID Region. This document defines the recommended address format for IPv4 addresses. The document lists the addresses allocated to each member in the MID Region and the interstate connections ip’s. The implementation of the proposed plan will go into stages and should be carefully coordinated between states.

**Acronyms**

ICAO	-	International Civil Aviation Organization
AMHS	-	ATN Message Handling System
ARP	-	Address Resolution Protocol
ATN	-	Aeronautical Telecommunications Network
CNS		Communication Navigation Surveillance
BGP	-	Border Gateway Protocol
DNS	-	Domain Name Service
IANA	-	Internet Assigned Numbers Authority
ICS	-	ATN Internet Communication Service
IP	-	ATN Internet Communication Service
IPV4	-	Internet Protocol Version 4

IPV6	-	Internet Protocol Version 6
IPS	-	Internet Protocol suite
LACNIC	-	Latin American and Caribbean Internet Address Registry
LIR	-	Local Internet Registry
OSPF	-	Open Shortest Path First
RIR	-	Regional Internet Registry
ANSP	-	Air Navigation Service Provider
ISP	-	Internet Service Provider
APAC	-	Asia and Pacific
CAR	-	Caribbean
SAM	-	South America
MID	-	Middle east
WACAF	-	West And Central Africa
ESAF	-	East And South Africa
PDU	-	Packet Data Unit
MTA	-	Message Transfer Agent
UA	-	User Agent
ACP	-	Aeronautical Communication Panel
SWIM	-	System Wide Information Management
PENS	-	PAN European Network Service
IMS	-	Information Management Service

**Global IPv4 assignments**

IPv4 Address																																			
10		Region	State / Territory				Host's																												
0	0	0	0	1	0	1	0	.	0	0	0	0	0	0	0	0	.	0	0	0	0	0	0	0	0	.	0	0	0	0	0	0	0	0	1
1st. Byte		2nd. Byte				3rd. Byte				4th. Byte																									

- 0000 => SAM: South American Office.
- 0001 => NACC: North American, American Power station and Caribbean Office.
- 0010 => APAC: Asia and Pacific Office.
- **0011 => MID: Middle East Office.**
- 0100 => WACAF: Western and Central African Office.
- 0101 => ESAF: Eastern and Southern African Office.
- 0110 => EUR/NAT: European and North Atlantic Office.

**IP address Scheme Characteristics:**

The proposed IPv4 address allocation scheme will be able to cover:

- 128 States
- 8190 Hosts for each State.
- 2048 Point-to-Point links.

**Network Assignment by Region**

Issue	State	Network	Direction Used	Decimal Notation	Binary Notation			
					1 <sup>st</sup> Byte	Region	State	Host
1	Bahrain	10.48.0.0/19	First	10.48.0.1	00001010.	0011	0000.000	00000.00000001
			Last	10.48.31.254	00001010.	0011	0000.000	11111.11111110
2	Egypt	10.48.32.0/19	First	10.48.32.1	00001010.	0011	0000.001	00000.00000001
			Last	10.48.63.254	00001010.	0011	0000.001	11111.11111110
3	Iran	10.48.64.0/19	First	10.48.64.1	00001010.	0011	0000.010	00000.00000001
			Last	10.48.95.254	00001010.	0011	0000.010	11111.11111110
4	Iraq	10.48.96.0/19	First	10.48.96.1	00001010.	0011	0000.011	00000.00000001
			Last	10.48.127.254	00001010.	0011	0000.011	11111.11111110
5	Jordan	10.48.128.0/19	First	10.48.128.1	00001010.	0011	0000.100	00000.00000001
			Last	10.48.159.254	00001010.	0011	0000.100	11111.11111110
6	Kuwait	10.48.160.0/19	First	10.48.160.1	00001010.	0011	0000.101	00000.00000001
			Last	10.48.191.254	00001010.	0011	0000.101	11111.11111110
7	Lebanon	10.48.192.0/19	First	10.48.192.1	00001010.	0011	0000.110	00000.00000001
			Last	10.48.223.254	00001010.	0011	0000.110	11111.11111110
8	Libya	10.48.224.0/19	First	10.48.224.1	00001010.	0011	0000.111	00000.00000001
			Last	10.48.255.254	00001010.	0011	0000.111	11111.11111110
9	Oman	10.49.0.0/19	First	10.49.0.1	00001010.	0011	0001.000	00000.00000001
			Last	10.49.31.1	00001010.	0011	0001.000	11111.11111110
10	Qatar	10.49.32.0/19	First	10.49.32.1	00001010.	0011	0001.001	00000.00000001
			Last	10.49.63.254	00001010.	0011	0001.001	11111.11111110
11	Saudi Arabia	10.49.64.0/19	First	10.49.64.1	00001010.	0011	0001.010	00000.00000001
			Last	10.49.95.254	00001010.	0011	0001.010	11111.11111110
12	Sudan	10.49.96.0/19	First	10.49.96.1	00001010.	0011	0001.011	00000.00000001
			Last	10.49.127.254	00001010.	0011	0001.011	11111.11111110
13	Syria	10.49.128.0/19	First	10.49.128.1	00001010.	0011	0001.100	00000.00000001
			Last	10.49.159.254	00001010.	0011	0001.100	11111.11111110
14	UAE	10.49.160.0/19	First	10.49.160.1	00001010.	0011	0001.101	00000.00000001
			Last	10.49.191.254	00001010.	0011	0001.101	11111.11111110
15	Yemen	10.49.192.0/19	First	10.49.192.1	00001010.	0011	0001.110	00000.00000001
			Last	10.49.223.254	00001010.	0011	0001.110	11111.11111110

4B-5

<b>Range 1</b>		<b>Range 2</b>		<b>Range 3</b>		<b>Range 4</b>	
10.48.0.0	- 10.48.31.255	10.49.0.0	- 10.49.31.255	10.50.0.0	- 10.51.31.255	10.51.0.0	- 10.51.31.255
10.48.32.0	- 10.48.63.255	10.49.32.0	- 10.49.63.255	10.50.32.0	- 10.51.63.255	10.51.32.0	- 10.51.63.255
10.48.64.0	- 10.48.95.255	10.49.64.0	- 10.49.95.255	10.50.64.0	- 10.51.95.255	10.51.64.0	- 10.51.95.255
10.48.96.0	- 10.48.127.255	10.49.96.0	- 10.49.127.255	10.50.96.0	- 10.51.127.255	10.51.96.0	- 10.51.127.255
10.48.128.0	- 10.48.159.255	10.49.128.0	- 10.49.159.255	10.50.128.0	- 10.51.159.255	10.51.128.0	- 10.51.159.255
10.48.160.0	- 10.48.191.255	10.49.160.0	- 10.49.191.255	10.50.160.0	- 10.51.191.255	10.51.160.0	- 10.51.191.255
10.48.192.0	- 10.48.223.255	10.49.192.0	- 10.49.223.255	10.50.192.0	- 10.51.223.255	10.51.192.0	- 10.51.223.255
10.48.224.0	- 10.48.225.255	10.49.224.0	- 10.49.225.255	10.50.224.0	- 10.51.225.255	10.51.224.0	- 10.51.225.255
<b>Range 5</b>		<b>Range 6</b>		<b>Range 7</b>		<b>Range 8</b>	
10.52.0.0	- 10.52.31.255	10.53.0.0	- 10.53.31.255	10.54.0.0	- 10.54.31.255	10.55.0.0	- 10.55.31.255
10.52.32.0	- 10.52.63.255	10.53.32.0	- 10.53.63.255	10.54.32.0	- 10.54.63.255	10.55.32.0	- 10.55.63.255
10.52.64.0	- 10.52.95.255	10.53.64.0	- 10.53.95.255	10.54.64.0	- 10.54.95.255	10.55.64.0	- 10.55.95.255
10.52.96.0	- 10.52.127.255	10.53.96.0	- 10.53.127.255	10.54.96.0	- 10.54.127.255	10.55.96.0	- 10.55.127.255
10.52.128.0	- 10.52.159.255	10.53.128.0	- 10.53.159.255	10.54.128.0	- 10.54.159.255	10.55.128.0	- 10.55.159.255
10.52.160.0	- 10.52.191.255	10.53.160.0	- 10.53.191.255	10.54.160.0	- 10.54.191.255	10.55.160.0	- 10.55.191.255
10.52.192.0	- 10.52.223.255	10.53.192.0	- 10.53.223.255	10.54.192.0	- 10.54.223.255	10.55.192.0	- 10.55.223.255
10.52.224.0	- 10.52.225.255	10.53.224.0	- 10.53.225.255	10.54.224.0	- 10.54.225.255	10.55.224.0	- 10.55.225.255
<b>Range 9</b>		<b>Range 10</b>		<b>Range 11</b>		<b>Range 12</b>	
10.56.0.0	- 10.56.31.255	10.57.0.0	- 10.57.31.255	10.58.0.0	- 10.58.31.255	10.59.0.0	- 10.59.31.255
10.56.32.0	- 10.56.63.255	10.57.32.0	- 10.57.63.255	10.58.32.0	- 10.58.63.255	10.59.32.0	- 10.59.63.255
10.56.64.0	- 10.56.95.255	10.57.64.0	- 10.57.95.255	10.58.64.0	- 10.58.95.255	10.59.64.0	- 10.59.95.255
10.56.96.0	- 10.56.127.255	10.57.96.0	- 10.57.127.255	10.58.96.0	- 10.58.127.255	10.59.96.0	- 10.59.127.255
10.56.128.0	- 10.56.159.255	10.57.128.0	- 10.57.159.255	10.58.128.0	- 10.58.159.255	10.59.128.0	- 10.59.159.255
10.56.160.0	- 10.56.191.255	10.57.160.0	- 10.57.191.255	10.58.160.0	- 10.58.191.255	10.59.160.0	- 10.59.191.255
10.56.192.0	- 10.56.223.255	10.57.192.0	- 10.57.223.255	10.58.192.0	- 10.58.223.255	10.59.192.0	- 10.59.223.255
10.56.224.0	- 10.56.225.255	10.57.224.0	- 10.57.225.255	10.58.224.0	- 10.58.225.255	10.59.224.0	- 10.59.225.255
<b>Range 13</b>		<b>Range 14</b>		<b>Range 15</b>		<b>Range 16</b>	
10.60.0.0	- 10.60.31.255	10.61.0.0	- 10.61.31.255	10.62.0.0	- 10.62.31.255	10.63.0.0	- 10.63.31.255
10.60.32.0	- 10.60.63.255	10.61.32.0	- 10.61.63.255	10.62.32.0	- 10.62.63.255	10.63.32.0	- 10.63.63.255
10.60.64.0	- 10.60.95.255	10.61.64.0	- 10.61.95.255	10.62.64.0	- 10.62.95.255	10.63.64.0	- 10.63.95.255
10.60.96.0	- 10.60.127.255	10.61.96.0	- 10.61.127.255	10.62.96.0	- 10.62.127.255	10.63.96.0	- 10.63.127.255
10.60.128.0	- 10.60.159.255	10.61.128.0	- 10.61.159.255	10.62.128.0	- 10.62.159.255	10.63.128.0	- 10.63.159.255
10.60.160.0	- 10.60.191.255	10.61.160.0	- 10.61.191.255	10.62.160.0	- 10.62.191.255	10.63.160.0	- 10.63.191.255
10.60.192.0	- 10.60.223.255	10.61.192.0	- 10.61.223.255	10.62.192.0	- 10.62.223.255	10.63.192.0	- 10.63.223.255
10.60.224.0	- 10.60.225.255	10.61.224.0	- 10.61.225.255	10.62.224.0	- 10.62.225.255	10.63.224.0	- 10.63.225.255

MID REGION SUB-NETWORKS

(Orange=State Range

Blue=Vacancy

Red= Reserved)

**MID Region intra-Regional Links (Point to Point)**

No.	Sub-Network	Connected Route	Host / State	IP Address
1	10.63.224. 0 /30	<b>Bahrain - Riyadh</b>	--	10.63.224.0
			Bahrain	10.63.224.1
			Riyadh	10.63.224.2
			--	10.63.224.3
			--	10.63.224.4
2	10.63.224. 4 /30	<b>Bahrain - Dammam</b>	Bahrain	10.63.224.5
			Dammam	10.63.224.6
			--	10.63.224.7
			--	10.63.224.8
			Bahrain	10.63.224.9
3	10.63.224. 8 /30	<b>Bahrain - Jeddah</b>	Jeddah	10.63.224.10
			--	10.63.224.11
			--	10.63.224.12
			Bahrain	10.63.224.13
			Kuwait	10.63.224.14
4	10.63.224. 12 /30	<b>Bahrain - Kuwait</b>	--	10.63.224.15
			--	10.63.224.16
			Bahrain	10.63.224.17
			Doha1	10.63.224.18
			--	10.63.224.19
5	10.63.224. 16 /30	<b>Bahrain – Doha1</b>	--	10.63.224.20
			Bahrain	10.63.224.21
			Doha2	10.63.224.22
			--	10.63.224.23
			--	10.63.224.24
6	10.63.224. 20 /30	<b>Bahrain – Doha2</b>	Bahrain	10.63.224.25
			AbuDhabi1	10.63.224.26
			--	10.63.224.27
			--	10.63.224.28
			Bahrain	10.63.224.29
7	10.63.224. 24 /30	<b>Bahrain – AbuDhabi1</b>	AbuDhabi2	10.63.224.30
			--	10.63.224.31
			Bahrain	10.63.224.29
			AbuDhabi2	10.63.224.30
			--	10.63.224.31
8	10.63.224. 28 /30	<b>Bahrain – AbuDhabi2</b>	--	10.63.224.31

4B-7

No.	Sub-Network	Connected Route	Host / State	IP Address
9	10.63.224. 32 /30	<b>Bahrain – Tehran</b>	--	10.63.224.32
			Bahrain	10.63.224.33
			Tehran	10.63.224.34
			--	10.63.224.35
<i>7 Sub-Networks are reserved for future links (10.63.224.36/30 – 10.63.224.63/30)</i>				
10	10.63.224. 64 /30	<b>Egypt – Amman</b>	--	10.63.224.64
			Egypt	10.63.224.65
			Amman	10.63.224.66
11	10.63.224. 68 /30	<b>Egypt – Jeddah1</b>	--	10.63.224.67
			--	10.63.224.68
			Egypt	10.63.224.69
			Jeddah1	10.63.224.70
12	10.63.224. 72 /30	<b>Egypt – Jeddah2</b>	--	10.63.224.71
			--	10.63.224.72
			Egypt	10.63.224.73
			Jeddah2	10.63.224.74
13	10.63.224. 76 /30	<b>Egypt – Riyadh</b>	--	10.63.224.75
			--	10.63.224.76
			Egypt	10.63.224.77
			Riyadh	10.63.224.78
<i>12 Sub-Networks are reserved for future links (10.63.224.80/30 – 10.63.224.127/30)</i>				
14	10.63.224. 128 /30	<b>Iran - Iraq</b>	--	10.63.224. 128
			Iran	10.63.224. 129
			Iraq	10.63.224. 130
15	10.63.224. 132 /30	<b>Iran - Kuwait</b>	--	10.63.224. 131
			--	10.63.224. 132
			Iran	10.63.224. 133
			Kuwait	10.63.224. 134
<i>14 Sub-Networks are reserved for future links (10.63.224.136/30 – 10.63.224.191/30)</i>				
16	10.63.224. 192 /30	<b>Jordan - Jeddah</b>	--	10.63.224. 192
			Jordan	10.63.224. 193
			Jeddah	10.63.224. 194



No.	Sub-Network	Connected Route	Host / State	IP Address
			--	10.63.224. 195
<b>15 Sub-Networks are reserved for future links (10.63.224.196/30 – 10.63.224.255/30)</b>				
17	10.63.225. 0 /30	<b>Kuwait - Iraq</b>	-- Kuwait Iraq	10.63.225.0 10.63.225.1 10.63.225.2
			--	10.63.225.3
<b>15 Sub-Networks are reserved for future links (10.63.225.4/30 – 10.63.225.63/30)</b>				
18	10.63.225. 64 /30	<b>Qatar – Abu Dhabi</b>	-- Qatar Abu Dhabi	10.63.225. 64 10.63.225. 65 10.63.225. 66
			--	10.63.225. 67
<b>15 Sub-Networks are reserved for future links (10.63.225.68/30 – 10.63.225.127/30)</b>				
19	10.63.225. 128 /30	<b>Saudi Arabia (Jeddah) - Muscat</b>	-- Jeddah Muscat	10.63.225.128 10.63.225.129 10.63.225.130
			--	10.63.225.131
<b>15 Sub-Networks are reserved for future links (10.63.225.132/30 – 10.63.225.191/30)</b>				
20	10.63.225. 192 /30	<b>UAE (Abu Dhabi) - Muscat</b>	-- Abu Dhabi Muscat	10.63.225. 192 10.63.225. 193 10.63.225. 194
			--	10.63.225. 195
<b>15 Sub-Networks are reserved for future links (10.63.225.196/30 – 10.63.225.255/30)</b>				
--	10.64.226. 0 /30	<b>Lebanon</b>	--	--
<b>16 Sub-Networks are reserved for future links (10.63.226.0/30 – 10.63.226.63/30)</b>				
--	10.63.226. 64 /30	<b>Sudan</b>	--	--
<b>16 Sub-Networks are reserved for future links (10.63.226.64/30 – 10.63.226.127/30)</b>				

**Remark:** In case of a new IP link between two states, both States will have to use the next available IP address range as specified in the above table.

**MID Region intra-Regional Links (Per State)**

No.	State	Connected Route	Local Interface	Next Hop Interface
1	<b>Bahrain</b>	Bahrain - Riyadh	10.63.224.1	10.63.224.2
		Bahrain - Dammam	10.63.224.5	10.63.224.6
		Bahrain - Jeddah	10.63.224.9	10.63.224.10
		Bahrain - Kuwait	10.63.224.13	10.63.224.14
		Bahrain – Doha1	10.63.224.17	10.63.224.18
		Bahrain – Doha2	10.63.224.21	10.63.224.22
		Bahrain – AbuDhabi1	10.63.224.25	10.63.224.26
		Bahrain – AbuDhabi2	10.63.224.29	10.63.224.30
		Bahrain – Tehran	10.63.224.33	10.63.224.34
2	<b>Egypt</b>	Egypt-Amman	10.63.224.65	10.63.224.66
		Egypt-Jeddah1	10.63.224.69	10.63.224.70
		Egypt-Jeddah2	10.63.224.73	10.63.224.74
		Egypt-Riyadh	10.63.224.77	10.63.224.78
3	<b>Iran</b>	Iran-Iraq	10.63.224. 129	10.63.224. 130
		Iran-Kuwait	10.63.224. 133	10.63.224. 134
		Iran-Bahrain	10.63.224.34	10.63.224.33
4	<b>Iraq</b>	Iraq-iran	10.63.224. 130	10.63.224. 129
5	<b>Jordan</b>	Jordan - Jeddah	10.63.224. 193	10.63.224. 194
		Jordan - Cairo	10.63.224.66	10.63.224.65
6	<b>Kuwait</b>	Kuwait-Bahrain	10.63.224.14	10.63.224.13
		Kuwait-Iraq	10.63.225.1	10.63.225.2
		Kuwait-Iran	10.63.224. 134	10.63.224. 133
7	<b>Lebanon</b>	--	--	--
8	<b>Libya</b>	--	--	--
9	<b>Oman</b>	--	--	--

No.		Connected Route	Local Interface	Next Hop Interface
10	<b>Qatar</b>	Qatar-AbuDhabi	10.63.225. 65	10.63.225. 66
		Qatar-Bahrain1	10.63.224.18	10.63.224.17
		Qatar-Bahrain2	10.63.224.22	10.63.224.21
11	<b>Saudi Arabia</b>	Jeddah - Muscat	10.63.225.129	10.63.225.130
		Jeddah - Cairo1	10.63.224.70	10.63.224.69
		Jeddah - Cairo2	10.63.224.74	10.63.224.73
		Jeddah - Amman	10.63.224. 194	10.63.224. 193
		Jeddah - Bahrain	10.63.224.10	10.63.224.9
12	<b>Sudan</b>	--	--	--
13	<b>Syria</b>	--	--	--
14	<b>UAE</b>	UAE - Muscat	10.63.225. 193	10.63.225. 194
		UAE - Bahrain1	10.63.224.26	10.63.224.25
		UAE - Bahrain2	10.63.224.30	10.63.224.29
		UAE - Qatar	10.63.225. 66	10.63.225. 65
15	<b>Yemen</b>	--	--	--

**Impact of Changing Point-to-Point Ip address**

The corresponding point-to-point IP line will be down during IP replacement process

**Tips to Replace IP address**

- 1- Coordinate with the partner state to agree on IPs, Routing, etc.
- 2- Make a backup of current configuration of the network devices (Routers, Firewalls... etc.)

- 3- Simulate new configuration on test network devices if possible
- 4- Advise AFS operators about downtime duration & time (for data line) or the controller(for voice line), the AFS operator should direct TFC to alternative CCT, and controller to use alternative voice means(dialup, Backup voice line,...etc.)
- 5- Configure network device with new setting
- 6- Send test data and decide about its reliability
- 7- Advise about its availability.

**IP Change Schedule**

No	State	Old IP	New IP	Net Mask	Router Type	Target date to change	State to connect to	Circuit speed	Circuit number	Type of Circuit	ISP	State Contact
1	<b>Bahrain</b>											
2	<b>Egypt</b>											
3	<b>Iran</b>											
4	<b>Iraq</b>											
5	<b>Jordan</b>											
6	<b>Kuwait</b>											
7	<b>Lebanon</b>											
8	<b>Libya</b>											
9	<b>Oman</b>											
10	<b>Qatar</b>											
11	<b>Saudi Arabia</b>											
12	<b>Sudan</b>											
13	<b>Syria</b>											
14	<b>UAE</b>											
15	<b>Yemen</b>											

-----

MID AIDC/OLDI Readiness

State	Capability		Current use		Planned Use		Intention of using AIDC only	Reasons and Remarks
	AIDC	OLDI	AIDC	OLDI	AIDC	OLDI		
Bahrain	✓	✓				✓	No	OLDI to connect to neighbouring ATSUs
Egypt		✓		✓			No	OLDI in use to connect to EUR (Athens)
Iran								
Iraq								
Jordan	✓	✓				✓	No	OLDI to connect to neighbouring ATSUs
Kuwait	✓	✓				✓	No	OLDI to connect to Bahrain and Riyadh
Lebanon		✓				✓	No	OLDI will be in use to connect to EUR
Libya								
Oman								
Qatar		✓		✓		✓		OLDI in use with UAE and planned for use with Bahrain
Saudi Arabia	✓	✓	✓		✓	✓	No	Both AIDC and OLDI to cater to neighbouring ATSUs request
Sudan	✓	✓	✓		✓	✓	No	Both AIDC and OLDI to cater to neighbouring units requests
Syria								
UAE		✓		✓		✓	No	OLDI already in use with 6 partners and AIDC is not required as all neighbouring ATSUs are OLDI capable.
Yemen								

**Conclusion:**

The majority of States in the MID Region has either implemented OLDI or are planning to implement OLDI and have no intention of using only AIDC. Therefore, OLDI should be accepted as intra-regional AIDC within the MID Region without discouraging the use of AIDC wherever possible. States that are interfacing with adjacent Regions are required to support both AIDC and OLDI.

-----

**ATS INTER-FACILITY DATA COMMUNICATION (AIDC)  
IMPLEMENTATION PLAN**

EXPLANATION OF THE TABLE

*Column*

- 1 State/Administration – the name of the State/Administration;
- 2 Location of AIDC end system – the location of the AIDC end system under the supervision of State/Administration identified in column 1;
- 3 AIDC Pair – the correspondent AIDC end system;  
Location – location of the correspondent AIDC end system  
State/Administration – the name of the State/Administration responsible for management of the correspondent AIDC end system
- 4 AIDC standard used – the AIDC standard adopted for the AIDC connection between the corresponding AIDC pair, AFTN, AFTN/AMHS or ATN;
- 5 Target Date of Implementation – date of implementation of the AIDC end system;
- 6 Remarks – any additional information describing the AIDC end system or the AIDC service between the corresponding AIDC pair.

State/Administration	Location of AIDC end system	AIDC/OLDI Pair		AIDC standard used	Target date of Implementation	Remarks
		Correspondent location	Correspondent State/Administration			
1	2	3		4	5	6
<b>Egypt</b>	CANC Cairo	Athens	Athens	OLDI	Implemented	
	Cairo Air Navigation Center	Jeddah ACC	Saudi Arabia	OLDI	TBD	
<b>Bahrain</b>	Bahrain ACC	Kuwait ACC	Kuwait	OLDI	TBD	
		Sheikh Zayed Air Navigation Centre	U.A.E.	OLDI	Q4 2013	OLDI V4.2 FMTP 2.0
<b>Iran</b>						
<b>Iraq</b>						
<b>Jordan</b>	Amman ACC	Jeddah ACC	Saudi Arabia	AIDC/OLDI	TBD	
<b>Kuwait</b>	Kuwait ACC	Bahrain ACC	Bahrain	OLDI	TBD	
		Riyadh ACC	Saudi Arabia	OLDI	TBD	

State/Administration	Location of AIDC end system	AIDC Pair		AIDC standard used	Target date of Implementation	Remarks
		Correspondent location	Correspondent State/Administration			
1	2	3		4	5	6
Lebanon	Rafic Hariri Int'l Airport - Beirut	Cyprus	Cyprus	OLDI	TBD	Awaiting LOA
		Damascus	Syria	OLDI	TBD	Awaiting LOA
Libya						
Oman	Muscat International Airport					
Qatar	Doha	Sheikh Zayed Air Navigation Centre	U.A.E.	OLDI V4.2	Implemented Jan 2010	FMTP 2.0
Saudi Arabia	Riyadh ACC	Jeddah ACC	Saudi Arabia	AIDC	Implemented	
	Riyadh ACC	Dammam ACC	Saudi Arabia	AIDC	Implemented	



	Jeddah ACC	Cairo CANC	Egypt	OLDI	TBD	
		Amman ACC	Jordan	OLDI	TBD	OLDI V4.1
		Khartoum ACC	Sudan	OLDI	TBD	OLDI V4.1
		Riyadh ACC	Saudi Arabia	AIDC	implemented	
		Dammam ACC	Riyadh ACC	Saudi Arabia	AIDC	implemented
<b>Sudan</b>	Khartoum ACC	Cairo CANC	Egypt	OLDI	Q1 2014	
	Khartoum ACC	Jeddah ACC	Saudi Arabia	OLDI	Q4 2013	
	Khartoum ACC	Chad	Chad	AIDC	Implemented 2012	
	Khartoum ACC	Congo	Congo	AIDC	Implemented 2012	
<b>Syria</b>						
<b>UAE</b>	SZC Abu Dhabi	Abu Dhabi Int'l Airport	ADAC	OLDI V4.2	Implemented Apr2009	FMTP 2.0
	SZC Abu Dhabi	Dubai Int'l Airport	DANS	OLDI V4.2	Implemented Jun 2012	FMTP 2.0
	SZC Abu Dhabi	Sharjah Int'l Airport	Sharjah DCA	OLDI V4.2	Implemented Feb 2011	FMTP 2.0
	SZC Abu Dhabi	Ras al Khaimah Int'l Airport	Ras al Khaimah DCA	OLDI V4.2	Implemented Mar 2011	FMTP 2.0
	SZC Abu Dhabi	Al Ain Int'l Airport	ADAC	OLDI V4.2	Implemented Oct 2010	FMTP 2.0
	SZC Abu Dhabi	Doha ATC	Qatar CAA	OLDI V4.2	Implemented Jan 2010	FMTP 2.0
<b>Yemen</b>						

State	ATM System	Protocol and Version used	Number of neighbouring ATSUs	Number of neighbouring ATSUs connected by AIDC/OLDI and type of connection	ATM System Capability		Current use		Planned Use		Intention of using AIDC only	Reasons and Remarks
					AIDC	OLD I	AID C	OLD I	AID C	OLDI		
Bahrain					✓	✓				✓	No	OLDI to connect to neighbouring ATSUs
Egypt						✓		✓			No	OLDI in use to connect to EUR (Athens)
Iran												
Iraq												
Jordan					✓	✓				✓	No	OLDI allows for more message types
Kuwait					✓	✓				✓	No	OLDI to connect to Bahrain and Riyadh
Lebanon						✓				✓	No	OLDI in use to connect to EUR
Libya												
Oman												
Qatar								✓		✓		OLDI in use with UAE and planned for use with Bahrain
Saudi Arabia					✓	✓	✓		✓	✓	No	Both AIDC and OLDI to cater to neighbouring units requests
Sudan					✓	✓	✓		✓	✓	No	Both AIDC and OLDI to cater to neighbouring units requests
Syria												
UAE	PRISMA from COMSOFT	OLDI V4.2 FMTP 2.0	10	3 two-way integrated OLDI connections		✓		✓		✓	No	OLDI already in use with 6 partners and all neighbouring ATSUs are OLDI capable

				2 two-way standalone OLDI										
				1 one-way Standalone OLDI connection										
				Total 6 OLDI connections										
<b>Yemen</b>														

-----



State/Station	Cat	Current				Planned				Target date of implementation	Remarks
		Type	Signaling Speed	Protocol	Code	Type	Signaling Speed	Protocol	Code		
1	2	3	4	5	6	7	8	9	10	11	12
<b>EGYPT</b> CAIRO AMMAN ATHENS BEN GURION BEIRUT JEDDAH KHARTOUM NAIROBI TUNIS TRIPOLI TRIPOL2 DAMASCUS	M M T M M T M M M M M M	LL LL LL LL LL NAFISAT NAFISAT LL LL LL LL	64/9.6 64/9.6 64/9.6 9600 128/9.6 9600 9600 64/9.6 9600 19.2 64/9.6	AMHS CIDIN AFTN CIDIN AMHS AFTN AFTN AFTN AFTN AFTN AFTN	IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5		128 K	AMHS  AMHS		2010 2015 2010 2010 2010 2010 2010 2010 2010	backup
<b>IRAN</b> TEHRAN BAHRAIN KABUL KUWAIT ABU-DHABI KERACHI BAGHDAD MUSCAT	M T M M M T M	LDD/d LDD/d LDD/d LDD/d LDD/d	64 K VPN 64 K 64 K 64 K None 64Ks	UDP UDP UDP UDP UDP UDP UDP	IA-5 IA-5 IA-5 IA-5 IA-5 IA-5	SAT/d  SAT/d	64 Kbps  64 Kbps	AMHS AMHS AMHS AMHS	IA-5 IA-5 IA-5 IA-5		

State/Station	Cat	Current				Planned				Target date of implementation	Remarks
		Type	Signaling Speed	Protocol	Code	Type	Signaling Speed	Protocol	Code		
1	2	3	4	5	6	7	8	9	10	11	12
<b>IRAQ</b> BAGHDAD AMMAN BEIRUT	T T		- -	None None	IA-5 IA-5						
<b>JORDAN</b> AMMAN BAGHDAD BEIRUT BEN GURION CAIRO DAMASCUS  JEDDAH Cyprus Abu Dhabi	T M T M T S T T M		- - 1200 <b>64 K</b> 64 K/9.6  <b>64 K</b> <b>64 K</b> <b>2 MHz(VPN)</b>	- - None <b>AMHS</b> None  <b>AMHS</b> None <b>AMHS</b>	- - IA-5 - IA-5  IA-5		- -			Circuit not operational	<b>Circuit with Baghdad is not operational</b>  <b>Circuit with Abu Dhabi is over public internet using VPN</b>
<b>KUWAIT</b> KUWAIT BAHRAIN DAMASCUS BEIRUT DOHA (EUR) KARACHI TEHRAN BAGHDAD	M T M M - M M T	LDD/d LDD/a LDD/a LDD/a  LDD/d LDD/d SAT/ad	64/9.6 bps 64/9.6 kbs 64/9.6 kbs 64/9.6 bps  2.4 K 64/9.6 baud 9.6 bps	None None None None  None None None	ITA-5 ITA-2 ITA-2 ITA-5  ITA-2 ITA-2 ITA-2	LDD/d LDD/d	64/9.6 kbps 64/9.6 kbps		IA-5 IA-5		

State/Station	Cat	Current				Planned				Target date of implementation	Remarks
		Type	Signaling Speed	Protocol	Code	Type	Signaling Speed	Protocol	Code		
1	2	3	4	5	6	7	8	9	10	11	12
<b>LEBANON</b> BEIRUT AMMAN BAGHDAD BAHRAIN CAIRO DAMASCUS JEDDAH KUWAIT NICOSIA SITA	M T M M T M M M		- - 9600 9600 2 x 50 BD 19200 19200 9600 200	- None CIDIN CIDIN None AFTN AFTN CIDIN AFTN	- - IA-5 IA-5 ITA-2 IA-5 IA-5 IA-5					2014 2014	
<b>OMAN</b> MUSCAT ABU DHABI BAHRAIN MUMBAI JEDDAH SANA'A	T M M M T		9600 300 BD 9600 300 BD 100 BD	AMHS None None None None	IA-5 ITA-2 ITA-2 ITA-2						
<b>QATAR</b> DOHA BAHRAIN KUWAIT ABU DHABI	M M T		9600 100 BD 9600	None None AMHS	IA-5 ITA-2						

State/Station	Cat	Current				Planned				Target date of implementation	Remarks
		Type	Signaling Speed	Protocol	Code	Type	Signaling Speed	Protocol	Code		
1	2	3	4	5	6	7	8	9	10	11	12
<b>SAUDI ARABIA</b> JEDDAH ADDIS-ABABA BAHRAIN BEIRUT CAIRO MUSCAT SANA'A AMMAN	M M M M M T M		9600 64 /9.6 9600 128-/9.6 64 – 9.6 9600 9600	None CIDIN CIDIN CIDIN None None CIDIN	IA-5 IA-5 IA-5 IA-5 IA-5 IA-5 IA-5		9600			2010	
<b>SYRIA</b> DAMASCUS ATHENS AMMAN BEIRUT CAIRO KUWAIT TEHRAN	M T M M M M T		2 X 50 64/9.6 2 X 50 50 BD 50BD 50BD	None None None None None None	ITA-2 <del>ITA-2</del> ITA-2 ITA-2 ITA-2 ITA-2		9600 bps 9600 bps 9600 bps 9600 bps 9600 bps 9600 bps			2010 2009 2010 2009 2009 2010	



State/Station	Cat	Current				Planned				Target date of implementation	Remarks
		Type	Signaling Speed	Protocol	Code	Type	Signaling Speed	Protocol	Code		
1	2	3	4	5	6	7	8	9	10	11	12
<b>UAE</b> ABU DHABI BAHRAIN AMMAN MUSCAT QATAR TEHRAN	M T M T M	LDD/d LDD/d LDD/d LDD/d LTT/a	64 – 9.6K bps 2 MG bps 9600 bps 100buad	CIDIN AMHS AMHS AMHS AFTN None	IA-5 IA-5 IA-5 IA-5 ITA-2	LDD/d	9.6kb/s	AMHS AMHS/AFTN	CBI CBI IA-5		Secured VPN
<b>YEMEN</b> SANA'A JEDDAH MUSCAT	M M		9600 9600	None None	IA-5 IA-5						

## MID FASID – CNS 1B -

**TABLE CNS 1B**  
**MID Aeronautical Message Handling System (AHMS) Implementation Plan**

EXPLANATION OF THE TABLE

*Column*

- 1     *Name of State*
- 2     *Date of installation of AMHS – Aeronautical Message Handling System*
- 3     *Date of operation of AMHS – Aeronautical Message Handling System*
- 4     *MTA- Message Transfer Agent application*
- 5     *AFTN/AMHS Gateway*
- 6     *ATS Message UA-User Agent*
- 7     *ATS service level {    Basic , Extended }*
- 8     *Protocol (IPS, ATN) { Dual Stack,    IPS, OSI}*
- 9     *Remarks*

*Notes:*

- *The MID Region shall use the Europe EUR AMHS Manual EUR Doc 020 and all its Appendices for the implementation of AMHS*
- *Gateways and Interregional connection will be as agreed.*



## Appendix A to CNS 1B MID Region AMHS addresses

State	AMHS Address Specification							
State Name	Nationality Letters or Designator	Country-name attribute	ADMD-name attribute	PRMD-name attribute	Addressing scheme	ATN Directory naming-context	Organization-name (for CAAS only) single value or reference to the CAAS Table	Comments
Bahrain	OB	XX	ICAO	OB	CAAS		see Table OB	confirmed by SL
Egypt	HE	XX	ICAO	HE	CAAS		HECA	confirmed by SL
Iran (Islamic Republic of)	OI	XX	ICAO	OI	XF			confirmed by SL
Iraq	OR	XX	ICAO	OR	XF			
Israel	LL	XX	ICAO	LL	XF			
Jordan	OJ	XX	ICAO	OJ	CAAS		OJAC	confirmed by SL
Kuwait	OK	XX	ICAO	OK	XF			
Lebanon	OL	XX	ICAO	OL	XF			
Oman	OO	XX	ICAO	OO	XF			
Qatar	OT	XX	ICAO	OT	XF			
Saudi Arabia	OE	XX	ICAO	OE	XF			confirmed by SL
Syrian Arab Republic	OS	XX	ICAO	OS	XF			
UAE	OM	XX	ICAO	OM	XF			confirmed by SL
Yemen	OY	XX	ICAO	OY	XF			

-----

MID FASID – CNS 1C

4-CNS 1C-1

**TABLE CNS 1C - AERONAUTICAL TELECOMMUNICATION  
NETWORK***EXPLANATION OF THE TABLE***Column :**

- 1** Name of the States/stations or locations of an ATN Routing Domain
- 2** ATN applications in end systems (ES) of the State shown in column **1**  
  
AIDC – ATS Inter-facility Data Communication  
  
AMHS – Aeronautical Message Handling System  
  
Note : AMHS/S denotes an AMHS server
- 3** ATN router type to be implemented at the location shown in Column **1**  
BBIS – Backbone Boundary Intermediate System  
BIS -- Boundary Intermediate System (router) performing Inter Domain Routing Protocol (IDRP)  
IS -- Intermediate System (router) without IDRP
- 4** ATN Routing Domain Address Prefix
- 5** AFTN/AMHS gateway to be implemented at the location shown in column **1**
- 6** List of States routers to be connected with router of column **3**

- 7 The means of connecting the routers of columns 6 and 3  
DIR- Leased direct circuit
- 8 Date of implementation of the ATN facilities and applications, listed in columns 2, 3 and 5
- 9 Remarks

TABLE CNS 1C - ATN PLAN

STATE/CENTERS	ATN APPLICATI ONS	ATN ROUTER TYPE	ATN RD ADDRESS PREFIX	AFTN/AM HS GATEWAY	CONNECTED WITH ROUTER OF	VIA	IMPLEMENTA TION DATE	REMARKS
1	2	3	4	5	6	7	8	9
Bahrain <b>Bahrain</b>	AMHS/S AIDC	<b>BIS</b>		<b>X</b>	<b>ASIA/PAC</b> Oman,Saudi Arabia Kuwait,Lebanon Iran, Afganistan Qatar,UAE			
EGYPT <b>Cairo</b>	AMHS/S AIDC	<b>BIS</b>		<b>X</b>	<b>AFI, EUR</b> Israel, Jordan, Lebanon, Athena Saudi Arabia			
IRAN <b>Tehran</b>	AMHS/S AIDC	<b>BIS</b>			Kuwait, Bahrain Kerachi, afghnistan			

STATE/CENTERS	ATN APPLICATIONS	ATN ROUTER TYPE	ATN RD ADDRESS PREFIX	AFTN/AMHS GATEWAY	CONNECTED WITH ROUTER OF	VIA	IMPLEMENTATION DATE	REMARKS
1	2	3	4	5	6	7	8	9
IRAQ <b>Baghdad</b>	AMHS	IS			Jordan, Lebanon			
JORDAN <b>Amman</b>	AMHS/S AIDC	<b>BIS</b>		<b>X</b>	Egypt,Israel Lebanon,Iraq,Syria			
KUWAIT <b>Kuwait</b>	AMHS/S AIDC	<b>BIS</b>		<b>X</b>	<b>EUR</b> , Pakistan, Iran,Qatar,Bahrain, Lebanon			
LEBANON <b>Beirut</b>	AMHS/S AIDC	<b>BIS</b>		<b>X</b>	<b>EUR</b> Jordan,Syria Iraq,Kuwait,Bahrain Saudi Arabia,Egypt			
OMAN <b>Muscat</b>	AMHS/S AIDC	<b>BIS</b>		<b>X</b>	<b>ASIA/PAC</b> Yemen, Bahrain, UAE, Saudi Arabia			
QATAR <b>Doha</b>	AMHS AIDC	IS			Kuwait, Bahrain			
SAUDI ARABIA <b>Jeddah</b>	AMHS/S AIDC	<b>BIS</b>		<b>X</b>	<b>AFI</b> Egypt, Lebanon, Bahrain, Oman			

STATE/CENTERS	ATN APPLICATIONS	ATN ROUTER TYPE	ATN RD ADDRESS PREFIX	AFTN/AMHS GATEWAY	CONNECTED WITH ROUTER OF	VIA	IMPLEMENTATION DATE	REMARKS
1	2	3	4	5	6	7	8	9
					Yemen			
SYRIA Damascus	AMHS	IS			Jordan, Lebanon			
U.A.E Abu Dhabi	AMHS/S AIDC	BIS		X	Bahrain,Oman, Qatar Iran, Jeddah			
YEMEN Sana'a	AMHS	IS			Oman, Saudi Arabia			

TABLE CNSIC-new

-----



ATN/IPS WG/5  
Report on Agenda Item 5

---

**REPORT ON AGENDA ITEM 5: FUTURE WORK PROGRAMME**

5.1 The meeting noted that MIDANPIRG/13 under Decision 13/28 approved the Terms of Reference (TOR) of the ATN-IPS Working Group. The meeting reviewed and updated the Terms of Reference and the list of tasks based on the outcome of discussion, global and regional developments, as at **Appendices 5A** and **5B** to the Report on Agenda Item 5, and agreed to the following Draft Decisions:

***DRAFT DECISION 5/4: REVISED TOR OF THE ATN-IPS WORKING GROUP***

*That, the Terms of Reference and Work Programme of the ATN-IPS Working-Group be updated as at **Appendix 5A** to the Report on Agenda Item 5.*

***DRAFT DECISION 5/5: REVISED LIST OF TASKS***

*That, the list of tasks of the ATN-IPS Working-Group be updated as at **Appendix 5B** to the Report on Agenda Item 5.*

5.2 The meeting noted that list of member to ATN/IPS WG needs to be updated. Accordingly, the meeting agreed that ICAO MID Regional Office send a new State Letter requesting the update for the members for the ATN/IPS WG in view to maintain the continuity in the activity of the Working Group and increase their efficiency. In this regard, it was highlighted that States may appoint any number of members and the attendance to the ATN/IPS WG Meeting will not be limited for members. States may delegate any participants who are not members to attend the ATN/IPS WG Meetings.

5.3 The meeting further noted that MIDANPIRG/14 is planned to be held in December 2013. Accordingly, the meeting agreed that the ATN-IPS WG/6 Meeting be held in First Quarter of 2014. The venue will be Cairo, unless a State would be willing to host the meeting.

-----

**ATN/IPS WORKING GROUP TOR**

**1. TERMS OF REFERENCE (TOR)**

1.1 The Terms of Reference of the ATN/IPS Working Group (ATN/IPS WG) are:

- a) To promote regionally harmonized and agreed approach to transition planning to ATN in order for MID States to work collaboratively in developing their future transition arrangements towards the ATM system envisioned in the Global ATM Operational Concept; and
- b) address regional planning and implementation issues, related to AFTN/CIDIN/AMHS and networking issues including the usage of the public internet and development of MID IP NET standards

1.2 In order to meet the Terms of Reference, the ATN/IPS WG shall:

- a) Follow up on public Internet usage in the MID Region and document all Internet usage with particular attention to the safety/security of the data exchanged over the public internet;
- b) development of the ATN planning and implementation document to be main source for planning and implementation guidance;
- c) review and analyze the MID Region AFTN/CIDIN/AMHS plans and make suggestion for the improvement in accordance with the new development in the MID Region and coordinate the AMHS implementation;
- d) develop MID IP Network common specification and implementation guidance;
- e) develop AMHS implementation plan for the MID and related AMC implementation related materials;
- f) develop task list for the work programme and provide updates to CNS SG;
- g) Provide the necessary support for the implementation of the IPS in the MID Region; and
- h) develop the necessary legal framework for the use and operation of the MID-AMC.
- i) develop plan for the AIDC and provide support to CNS/ATM/IC for the ICD
- j) support the VoIP activities in the MID Region

**2. COMPOSITION**

ATN/IPS Group will be composed of experts nominated by MIDANPIRG Provider States.

Other representatives, who could contribute to the activity of the Group, could be invited to participate as observers.

-----

ATN/IPS WG/5  
 Appendix 5B to the Report on Agenda Item 5

**TASK LIST**

<b>No</b>	<b>Description</b>	<b>Deliverables</b>	<b>Target Date</b>	<b>Responsibility</b>
1	Review of implementation problems and develop coordinated solutions Coordinate/compile the regional implementation schedule	Updated information in the ATN Router and AMHS planning tables and the implementation status maintain the AMHS Implementation Plan	ongoing	Members  Bahman (Iran), Saud (Kuwait) Khaled (Egypt) Through the AMC Forum
2	Monitor ATN Implementation	Status of impl.	ATN-IPS WG/5	ATN-IPS WG
4	MID - AMC	Complete the development	March 2013	ATN-IPS Jordan
	Support States for the USE of the MID-AMC during the trial	Feedback forms	ongoing	ATN-IPS WG
	Support MID-AMC team	Progress report	ongoing	ATN-IPS WG
5	MID ATN AMHS will adopt IPv4 address assignment proposed by as an interim measure and will transit to IPv6 after the related implementation issues are resolved. This approach will be based on point-to-point IP network	Guidance Doc on IPv4 addressing plan to be developed	Ongoing progress report March 2013	Haitham (Egypt), Abdulla (Saudi Arabia), Mona (Jordan) and Yaseen (Bahrain)
6	facilitate implementation of VoIP in MID	Develop required guidance	March 2013	Mohammed (Bahrain) All
7	develop a list of the documents needed for MID-ATN Implementation	List of documents	ATN-IPS WG/5	All
	Develop(conclude) IP Network establishment Study		June 2013	Yassin,mona,khaled,Abdulla, Hamad, Mubark
9	<del>Presentation from PTT for IP network for the region, Coordination for presentation from suppliers</del>	<del>Proposal and presentation</del>	<del>ATN-IPS WG./5</del>	<del>Mohammed (Bahrain) Khaled Egypt Abdullah (Saudi Arabia)</del>
11	Continue development of MID AIDC implementation plan		ATN-IPS WG./5	States and ATN-IPS WG members

-----

ATN/IPS WG/5  
Report on Agenda Item 6

---

**REPORT ON AGENDA ITEM 6: ANY OTHER BUSINESS**

6.1            Nothing has been discussed under this Agenda Item.

-----

ATN/IPS WG/5  
Attachment A to the Report

---

**LIST OF PARTICIPANTS**

NAME	TITLE & ADDRESS
<b><u>STATES</u></b>	
<b>BAHRAIN</b>	
Mr. Mohamed Ali Saleh	Head, Aeronautical Communication Civil Aviation Affairs P.O.Box 586 KINGDOM OF BAHRAIN Fax: 973 17 329 966 Tel: 973 17 321 187 Mobile: 973 3962 2202 Email: masaleh@caa.gov.bh
Mr. Yaseen Hassan Al Sayed	Senior Computer Network Administrator Civil Aviation Affairs P.O. Box 586 KINGDOM OF BAHRAIN Fax: 973 17 329 980 Tel: 973 17 329 966 Mobile: 973 3952 0025 Email: y.alsayed@caa.gov.bh
<b>EGYPT</b>	
Mr. Ahmed Abdel Wahab Mohamed	Communication Engineer Ministry of Civil Aviation Cairo Airport Road Cairo - EGYPT Fax: 202 2226 8332 Tel: 202 2268 1347 Mobile: 011 44007328 Email: ahmedabelwahab02@yahoo.com
Mr. Ahmed Maher Khalifa Idris	Supervisor at Cairo AMSC National Air Navigation Services Company (NANSC) Cairo Airport Road Cairo - EGYPT Fax: 202 2265 7849 Tel: 202 22657886 Mobile: 01003354823 Email: khalifaahmed72@yahoo.com
Ms. Heba Mostafa Mohamed	Supervisor AIS Unit and Technical Coordinator Ministry of Civil Aviation Cairo Airport Road Cairo - EGYPT Fax: (202) 2268 5420 Tel: (202) 2417 5389 Mobile: (2014) 7222 395 Email: heba.mostafa1@hotmail.com

NAME	TITLE & ADDRESS
Mr. Ibrahim Sayed Nasr	Supervisor Telecommunication Officer National Air Navigation Services Company (NANSC) Cairo Airport Road Cairo - EGYPT Fax: 202 2265 7849 Tel: 202 22657867//61/22657851 Mobile: 01287259454 Email: ibrahemsayednasr@yahoo.com
Mr. Khaled Mohamed Reda Ahmed	Communication Engineer Ministry of Civil Aviation Cairo Airport Road Cairo - EGYPT Fax: 202 2226 8332 Tel: 202 2268 1347 Mobile: 0100 564 8346 Email: khaled.reda@civilaviation.gov.eg
Mr. Haytham Mohamed Ahmed El Dosoki	Director of AIM System National Air Navigation Services Company (NANSC) Cairo Airport Road Cairo - EGYPT Fax: 202 22692939 Tel: 202 22657824 Mobile: 0100 7810781 Email: haitham.eldosoki@gmail.com
Mr. Mahmoud Aly Ramadan	General Director of Information Computer National Air Navigation Services Company (NANSC) Cairo Airport Road Cairo - EGYPT Fax: 202 22692939 Tel: 202 22657959 Mobile: 0100 6541506 Email: mahmoud.ramadan53@gmail.com
<b>JORDAN</b> Ms. Muna Ribhi Naddaf	Head of AFTN/AIS/AMHS Civil Aviation Regulatory Commission P.O.Box 7547 Postal 11110 Amman - JORDAN Fax: 962-6 489 1653 Tel: 962-6 489 1473 Mobile: 962-79 987 6710 Email: aftn_ais@carc.gov.jo
<b>KUWAIT</b> Mr. Dawood Al-Jarrah	Head of AFTN Section Directorate General of Civil Aviation Kuwait International Airport P.O. Box 17 Safat 13001 State of KUWAIT Fax: 965-2 473 2530 Tel: 965-2 472 1279 Mobile: 965 9908 8511 Email: da.aljarrah@dgca.gov.kw

NAME	TITLE & ADDRESS
Mr. Naser Al-Hubail	Assistant Supervisor - AFTN Section Directorate General of Civil Aviation Kuwait International Airport p.o.Box 17 Safat 13001 13001 KUWAIT Fax: 965-2 473 2530 Tel: 965-2 472 1279 Mobile: 965 96641145 Email: aftn@kuwait-airport.com.kw
Mr. Saud Ali Al Mutairi	Director, Navigational Eq. Department Directorate General of Civil Aviation P.O.Box 17 Safat, 13001 State of KUWAIT Fax: 965-2 431 9232 Tel: 965-2 476 0421 Mobile: 965 9904 0805 Email: sa.almutairi@dgca.gov.kw
<b>LEBANON</b> Mr. Elias Elkhoury	Director of Technical Exploitation Lebanese Directorate General of Civil Aviation Beirut Airport Beirut – LEBANON Fax: 961-1 629 035 Tel: 961-1 628 150 Mobile: 961-3 998 823 Email: khouryeli@beirutairport.gov.lb
Eng. Mohamed Abdallah Saad	Head of Networking and Communication Equipments Lebanese Directorate General of Civil Aviation Beirut Rafic Hariri International Airport-Beirut Beirut – LEBANON Fax: 961-1 629 031 Tel: 961-1 628 151 Mobile: 961-3 280 299 Email: msaad@beirutairport.gov.lb Saadmohd20@hotmail.com
Mr. Rabee Harakeh	Chief of Telecommunications Monitoring Lebanese Directorate General of Civil Aviation Beirut Airport Beirut – LEBANON Fax: 961-1 629 035 Tel: 961-1 628 150 Mobile: 961-3 719 944 Email: rabeeharakeh@hotmail.com rabeeharakeh@beirutairport.gov.lb

NAME	TITLE & ADDRESS
<p><b>SAUDI ARABIA</b> Mr. Abdullah Bin Saleh</p>	<p>Systems Programmer General Authority of Civil Aviation P.O.Box 15441 Jeddah 21444 Kingdom of Saudi Arabia Fax: 966 2 671 9041 Tel: 966 2 671 7717 Ext 1550 Mobile: 966 504 843 757 Email: abinsaleh@gaca.gov.sa</p>
<p>Mr. Ahmad A. Myah</p>	<p>Communication Operations Supervisor General Authority of Civil Aviation P.O.Box 15441 Jeddah 21444 Kingdom of Saudi Arabia Fax: 966 2 6854016 Tel: 966 2 6850532 Mobile: 966 0505678246 Email: ahmed.meyah@gmail.com</p>
<p>Mr. Faisal Al Zarhrani</p>	<p>Air Navigation System Engineer General Authority of Civil Aviation P.O.Box 15441 Jeddah 21444 Kingdom of Saudi Arabia Fax: 966-2 671 9041 Tel: 966-2 671 7717 Ext 1363 Mobile: 966-54 134 1000 Email: f115@hotmail.com fzahrani@gaca.gov.sa</p>
<p>Mr. Mohammed Abdullah Al Qarni</p>	<p>Communication Specialist General Authority of Civil Aviation Air Navigation Services P.O.Box 6326 Jeddah 21442 Kingdom of Saudi Arabia Fax: 966-2 685 4016 Tel: 966-2 685 0532 Mobile: 966 059 561 2939 Email: mo.alqarni@hotmail.com</p>
<p><b>SUDAN</b> Eng. Eihab Mahgoub</p>	<p>ANS PMO Director Sudan Civil Aviation Authority ACC – Khartoum P.O.Box 137 Fax: 00249 183770001 Tel: 00249 183763380 Mobile: 00249 123499320 Email : eihabcaa@yahoo.co.uk eihabcaa@hotmail.com</p>



---

NAME	TITLE & ADDRESS
Eng. Mubark Galaleldien Abuzaid	AMHS/AIS Sys Administrator Sudan Civil Aviation Authority P.O.Box 430 Khartoum - Sudan Fax: 00249 183770001 Tel: 00249 183770001 Mobile: 00249 123499394 Email : mubark.g@hotmail.com
<b>UNITED ARAB EMIRATES</b> Mr. Hamad Rashid Al Belushi	Head of ANSP Research and Dataset General Civil Aviation Authority P.O.Box 666 Abu Dhabi UNITED ARAB EMIRATES Fax: 971-2 599 6836 Tel: 971-2 599 6857 Mobile: 971-50 616 4350 Email: hbelushi@szc.gcaa.ae

-END-