



ATS Messaging Management Centre



AMC Operation Webinar

6-7 April 2021



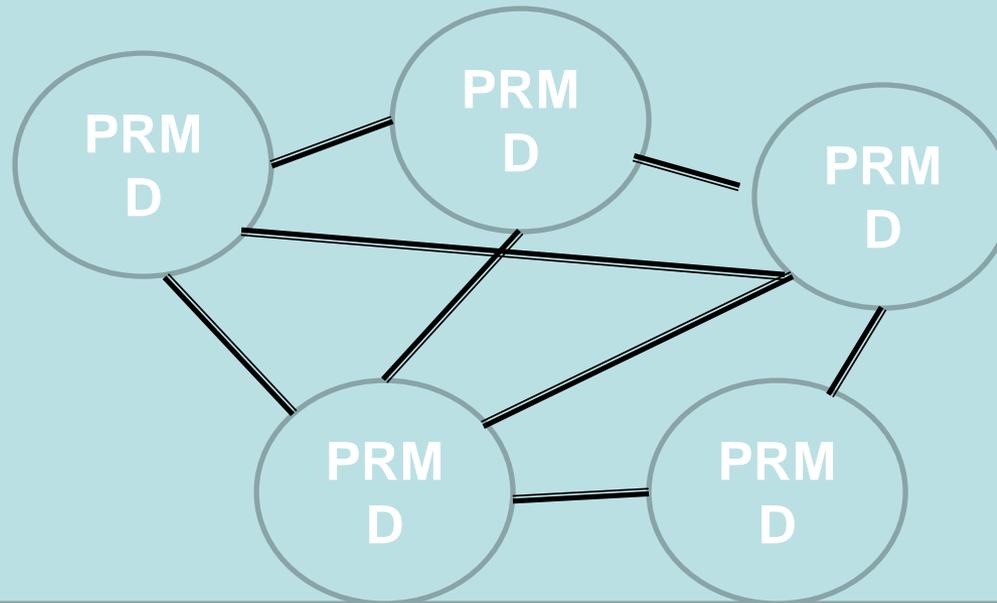
ATS Messaging Management Centre



An AMHS address is composed of two parts:

- An AMHS Management Domain identifier, which is globally unique within the whole MHS world and the AMHS.
- A set of “low level“ address attributes, which uniquely identifies the user within the considered PRMD.

ADMD



ICAO has an ITU-T registration as an International Organisation ADMD. This implies that:

- a) the country-name takes the value „XX“ as authorised by ITU-T to ICAO , and
- b) b) the administration-domain-name takes the value „ICAO“ as registered by ITU-T for ICAO



AMHS Naming

ATS Messaging Management Centre



- An ATSO shall establish at least one **PRMD** taking a unique private-domain-name value. The AMHS SARPs define as default name the one or **two ICAO Nationality Letters** (as defined in ICAO Document 7910) identifying the considered State
- Each state should register AMHS Management Domain identifiers which is composed of the following attributes: country name "XX"; administration domain-name "ICAO"; and private-domain-name.
- The AMHS Management Domain identifiers have to be registered at ICAO .



ATS Addressing

ATS Messaging Management Centre



The AMHS SARPs specify two MF-addressing schemes:

- 1- Common AMHS Addressing Scheme (CAAS).
- 2- XF-addressing scheme (Translated form).

Both schemes use selected attributes of the mnemonic OR address.

MHS		AMHS	
Attribute	Name of Attribute	CAAS Value	XF Value
High level attributes			
C		"XX"	
A	Administration Domain Name	"ICAO"	
P	Private Domain Name		
Low Level Address attributes			
O			"AFTN"
OU	Organizational unit name 1	4-character ICAO location Indicator	8- letter AFTN Address
CN	Common Name	8- letter AFTN Address	



ATS Messaging Management Centre



EX: XF Address

AFTN Address: OLBAZTZX

C=XX/A=ICAO/P=OL/O=AFTN/OU=OLBAZTZX



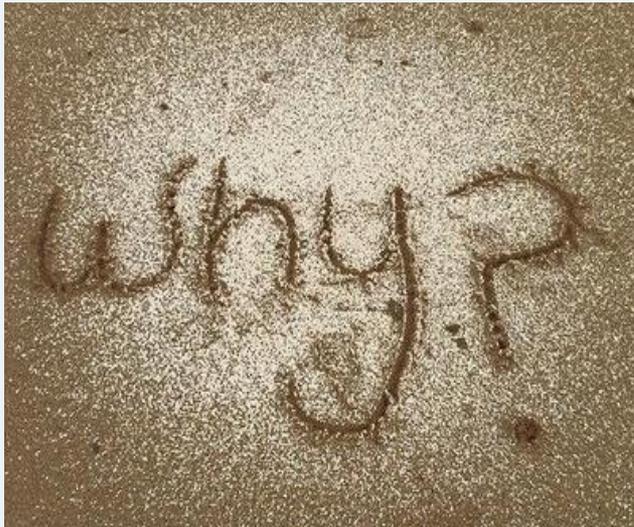
ATS Messaging Management Centre



EX: CAAS Address

AFTN Address: OEDFZTZX

C=XX/A=ICAO/P=Saudi Arabia/O=OEJD/OU=OEDF/CN=OEDFZTZX



Do we need the Address
Management Function?



Iran Address
C=XX/A=ICAO/P=Iran

Routing table:
OI Next hop =OE

Routing table
C=XX/A=ICAO/P=OI
Message received with
add:
C=XX/A=ICAO/P=Iran



Gateway converted add to
C=XX/A=ICAO/P=Iran
Routing table : next hop OB





ATS Messaging Management Centre



- Originator/ recipient address (O/R) is used to route messages , the high level attributes are used for Inter- domain routing, while the low level attributes are used for Intra- domain Routing.
- The use of wrong AMHS addresses may cause mis-routings and non-deliveries. Also, lack of synchronization in changes introduces wrong addresses
- AMHS Addressee are expected to change frequently during the transition period, AFTN and CIDIN are more static

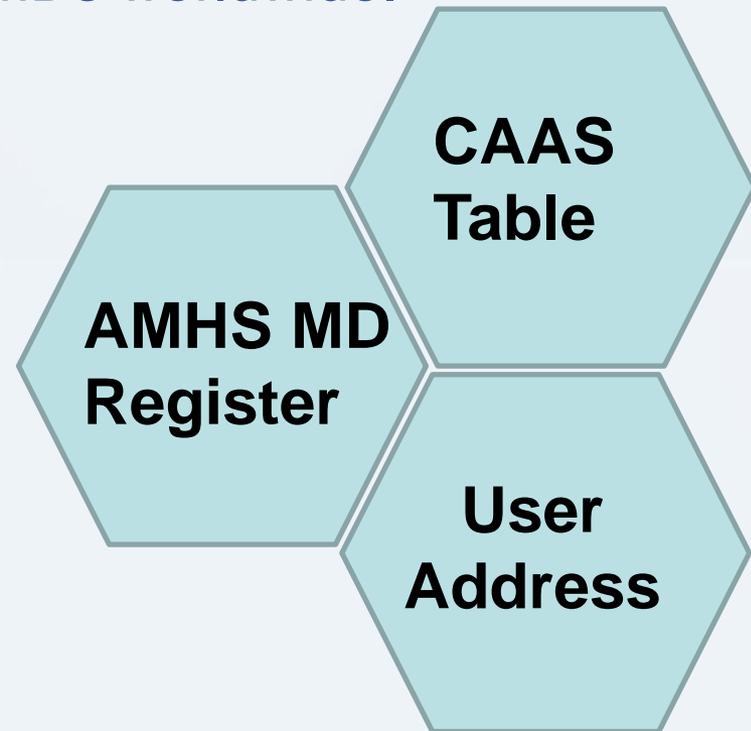


ATS Messaging Management Centre



- At the AFTN/AMHS Gateway; where is a mixed environment, conversion from AFTN/CIDIN address to AMHS address needs up to date AMHS addressee information.
- In the short- to medium-term, ICAO HQ will utilize the AMC and has urged the States to follow the procedures for AMHS address coordination through the AMC (see ICAO State Letter - Ref.:AN 7/49.1-09/34 from 14 April 2009).

- A modification in an AMHD Management domain creates a need for change in all other MDs worldwide.
- Three Sets of Information are managed by the Address Management function:



AMHS MD Register sub-function, which contains all MD information registered by ICAO Headquarters

AMHS MD Register consists of:

- The *name of the State or Organization*
- The *Nationality Letters (two letters), should be unique*
- the global domain identifier of the Management Domain (GDI) , *Made of three elements (High level Attribute)*
 - a) *Country-name attribute (C) = XX*
 - B) *Administrative Management Domain (A)= ICAO*
 - c) *Private Management Domain (P)*
- The Addressing scheme (CAAS or XF)
- *ATN directory naming-context*
- *COM Center*



ATS Messaging Management Centre



- Routing Directory
- Address Management**
- User Capabilities Management
- Static Report
- COM Charts

- View Pre-Operational Data**
- Network Inventory
 - Routing Directory and ACK
 - Address Management
 - User Capabilities Management
 - Static Report (updated data)

- Enter Background Data**
- Network Inventory
 - Address Management
 - User Capabilities Management

- Miscellaneous Functions**
- Support Functions
 - View Bulletin Board
 - View AIRAC Cycle
 - AMC Operator Details
 - Path Function
 - Convert AFTN Address
 - Regions
 - Send E-Mail to User Groups

Manage Background Data

AMHS MD Register

Operational Area

[HELP]

AMHS MD Register Intra MD Addressing

Region: MID | MD Common Name: SAUDI ARABIA | HOME | Addressing Scheme: CAAS XF | SEARCH

Country-Name: XX | ADMD-Name: ICAO | PRMD-Name: SAUDI ARABIA

MD Common Name: SAUDI ARABIA | Country-Name: XX | Addressing Scheme: CAAS XF | ATN Directory Naming-Context: SAUDI ARABIA

PRMD-Name: SAUDI ARABIA | ADMD-Name: ICAO | Administrative Status: INTERNAL | Operational Status: OP

State(s)/ Organization(s)

State(s)/ Organization(s)	Nationality Letters or Designator
SAUDI ARABIA	OE

COM Centres

COM Centres	Location
OEJN	JEDDAH/KING ABDULAZIZ INTERNATIONAL

Created by: sara20061 | Created on: 2014/03/04 12:36:51 | Last Modified by: sara20061 | Last Modified on: 2014/03/04 12:46:21



ATS Messaging Management Centre



- User Capabilities Management
 - Static Report
 - COM Charts
-
- View Pre-Operational Data**
- Network Inventory
 - Routing Directory and ACK
 - Address Management
 - User Capabilities Management
 - Static Report (updated data)
-
- Enter Background Data**
- Network Inventory
 - Address Management
 - User Capabilities Management
-
- Miscellaneous Functions**
- Support Functions
 - View Bulletin Board
 - View AIRAC Cycle
 - AMC Operator Details
 - Path Function
 - Convert AFTN Address
 - Regions
 - Send E-Mail to User Groups
-
- Manage Background Data**
- AMHS MD Register
 - Lock/Unlock COM Centre

AMHS MD Register **Intra MD Addressing**

Region: MID MD Common Name: HE HOME Addressing Scheme: CAAS XF SEARCH

Country-Name: XX ADMD-Name: ICAO PRMD-Name: SAUDI ARABIA

CAAS Table

Organization	Organizational Unit
HECA	HE**

User Address Table

AFTN Addr Indicator	O/R Address
---------------------	-------------

EXPORT CAAS TABLES

REPORT



ATS Messaging Management Centre



MHS		AMHS	
Attribute	Name of Attribute	CAAS Value	XF Value
High level attributes			
C			“XX”
A	Administration Domain Name		“ICAO”
P	Private Domain Name		
Low Level Address attributes			
O			“AFTN”
OU	Organizational unit name 1	4-character ICAO location Indicator	8- letter AFTN Address
CN	Common Name	8- letter AFTN Address	

CAAS table contains “O-OU1” relationship

- one entry for each Location Indicator belonging to the AMHS MD, which in a CAAS address is borne by the *organisational-unit-names attribute (OU1)*
- each entry also includes the associated geographical unit identification, grouping several Location Indicators, which in a CAAS address is borne by the *organisation-name attribute (O)*. Or Nationality Letters plus the wild card character(s) “*”

For MDs selected XF addressing scheme the table shall be empty



ATS Messaging Management Centre



User addresses table contains full user O/R address and used to define any individual address in exceptional cases only.

www.midamc.jo/POPUPS/addUserAddress.aspx?MD=BRAZIL&ADMD=ICAO&COUNTRY=XX&PRMD=SB

Address Management [HELP]

Intra MD Addressing

Individual User O/R Address

Country-Name	ADMD-Name	PRMD-Name	Organization		
<input type="text" value="XX"/>	<input type="text" value="ICAO"/>	<input type="text" value="SB"/>	<input type="text"/>		
Organizational Unit1	Organizational Unit2	Organizational Unit3	Organizational Unit4	Common Name	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	
Surname	Given Name	Initials	Gen.Qual.	DDA. Type	DDA. Value
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
				<input type="text"/>	<input type="text"/>
				<input type="text"/>	<input type="text"/>
				<input type="text"/>	<input type="text"/>

User Identification

User Short Name	AFTN Address Indicator
<input type="text"/>	<input type="text"/>

SUBMIT **CANCEL** **CLOSE**

when operationally required



ATS Messaging Management Centre

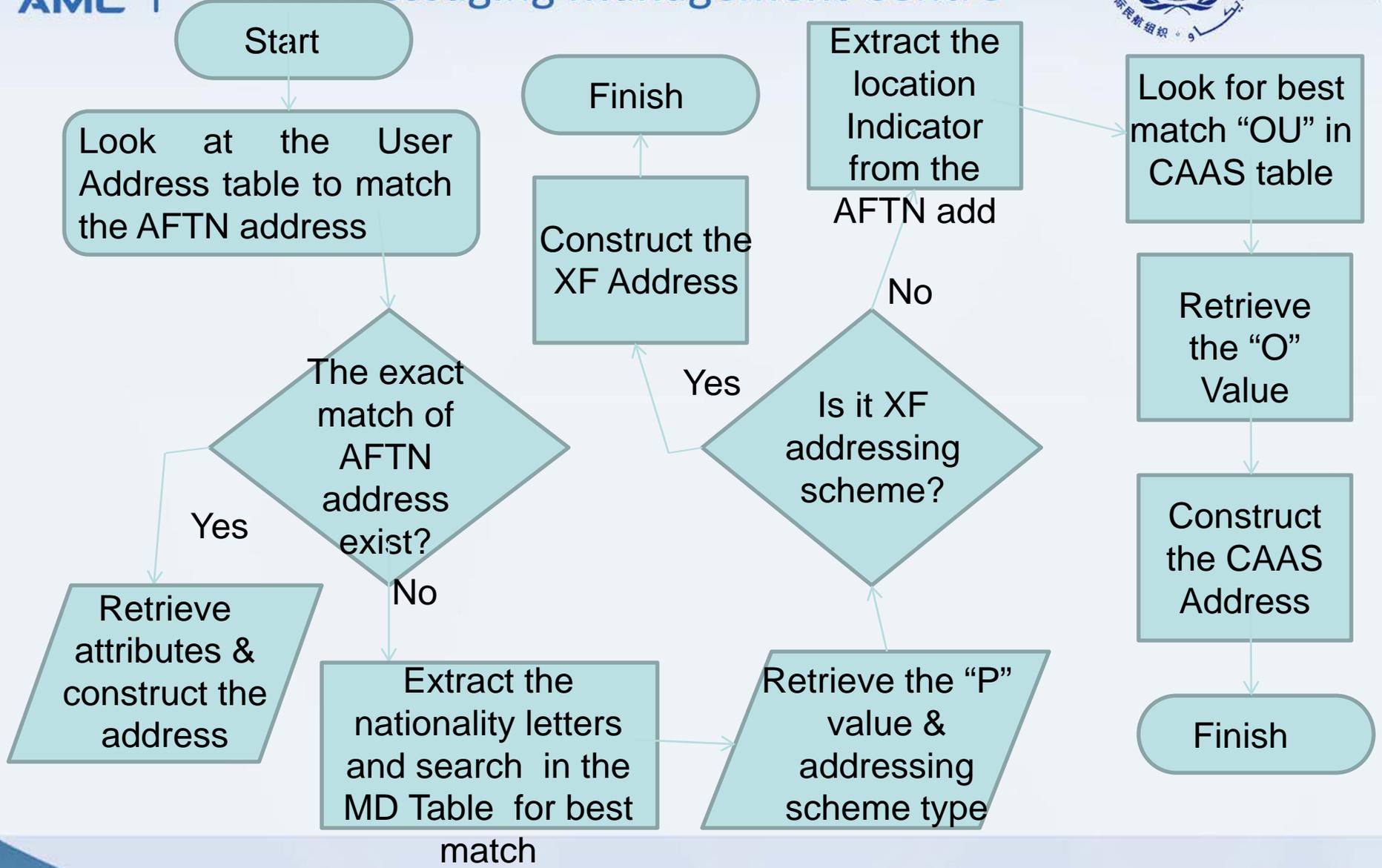


Demonstration



AFTN Address Conversion Algorithm

ATS Messaging Management Centre



Two categories of address changes

A) Major changes:

They include:

- Addition or deletion of PRMDs
- Modification of PRMD-name
- Change of addressing scheme (from XF to CAAS or vice-versa)

They have a major operational impact, They are expected to be infrequent



ATS Messaging Management Centre



- The External COM Operator should contact the MID AMC Operator or the CNS officer in ICAO MID Office to make a major Address change, cannot be entered into the AMC directly by the state user.
- After Coordination with ICAO HQ, MID AMC enters the change into the AMC in coordination with the EUR AMC Operator



ATS Messaging Management Centre



Procedure for Major change

- 1- An accredited person in the considered State declares the change to the MID Office for the ICAO Region or to the MID AMC Operator. the applicability date of the change (an AIRAC date); using a standard written pro-forma
2. The CNS Officer in the Regional Office, in coordination with ICAO Headquarters as appropriate, validates the acceptability of the declared change from an official and institutional viewpoint;
3. after validation, the CNS Officer forwards the declaration of change to the MID AMC Operator, **at the latest 21 days before the applicability date**



ATS Messaging Management Centre



Procedure for Major change (Cont'd)

4. the MIDAMC Operator coordinates with the AMC Operator to enter data in the AMC (AMHS MD Register sub-function) based on the input received from the MID Office, at the appropriate time considering the applicability date of the change and using the AMC operational procedures;
5. at the date of applicability, i.e. at each AIRAC cycle date, the MID AMC users should retrieve an AMHS address management export file from the AMC and upload it to the AMHS system in place. MIDAMC operator should notify MID users if there is a change.



ATS Messaging Management Centre



B) Minor changes:

- They consist in modifications in a CAAS table
- They have an operational impact which can be more limited and can be more frequent

➤ Procedure for Minor change:

- 1- The External COM Operator in the considered State enters data corresponding to the intended change in the MID AMC during the Data entry Phase
- 2- The AMC operator performs the standard AMC operational procedures, such that the status of changed data is passed to “operational” at the applicability date;
3. at the date of applicability, at each AIRAC cycle date, All MID AMC Users should export file from the AMC and uploads it to system in place.



ATS Messaging Management Centre



- From Day 25, External COM Operator can export the three Addressee lockup tables.
- On AIRAC date at 11:00UTC, External COM operator should set the new data to become live.
- You can contact the MID AMC team anytime at midamc@carc.gov.jo

Exercise

