



# Virtual Meeting COM AMHS/3

(Teleconference, 21 – 24 February 2022)

**Third (Virtual) Workshop/Meeting of the  
Supervisors/Operators of COM AMHS  
Centers of the SAM Region**





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## Tentative Schedule y Provisional Agenda





## TENTATIVE SCHEDULE

HOUR (UTC)	Monday 21 February 2022	HOUR (UTC)	Tuesday 22 February 2021	HOUR (UTC)	Wednesday 23 February 2021	HOUR (UTC)	Thursday 24 February 2021
13:45 14:00	Registration of participants	13:30 14:15	Agenda Item 2	13:30 14:15	Agenda Item 3	13:30 14:15	Agenda Item 4
14:00 14:15	Opening						
14:15 15:00	Agenda Items 1 & 2	14:15 15:00	Agenda Item 2	14:15 15:00	Agenda Item 3	14:15 15:00	Agenda Item 4
15:00 15:10	<b>Brake</b>	15:00 15:10	<b>Brake</b>	15:00 15:10	<b>Brake</b>	15:00 15:10	<b>Brake</b>
15:10 16:10	Agenda Item 2	15:10 16:10	Agenda Item 3	15:10 16:10	Agenda Item 3	15:10 16:10	Agenda Item 4
16:10 17:10	<b>Lunch Braek</b>	16:10 17:10	<b>Lunch Braek</b>	16:10 17:10	<b>Lunch Braek</b>	16:10 17:10	<b>Lunch Braek</b>
17:10 18:00	Agenda Item 2	17:10 18:00	Agenda Item 3	17:10 18:00	Agenda Item 3	17:10 18:00	Agenda Item 5
18:00 18:10	<b>Brake</b>	18:00 18:10	<b>Brake</b>	18:00 18:10	<b>Brake</b>	18:00 18:10	<b>Brake</b>
18:10 19:00	Agenda Item 2	18:10 19:00	Agenda Item 3	18:10 19:00	Agenda Item 3	18:10 19:00	Closing Session



## PROVISIONAL AGENDA

- Agenda Item 1: Adoption of the agenda and schedule of the meeting
- Agenda Item 2: Presentation of the approved contingency plans for message service prepared by SAM Region States
- Agenda Item 3: Review of routing tables and updating of information in the AMHS Address Management Centre (AMC) of EUROCONTROL
- Agenda Item 4: Review of the information constant in Vol II of the ANP CAR/SAM
- Agenda Item 5: Other issues



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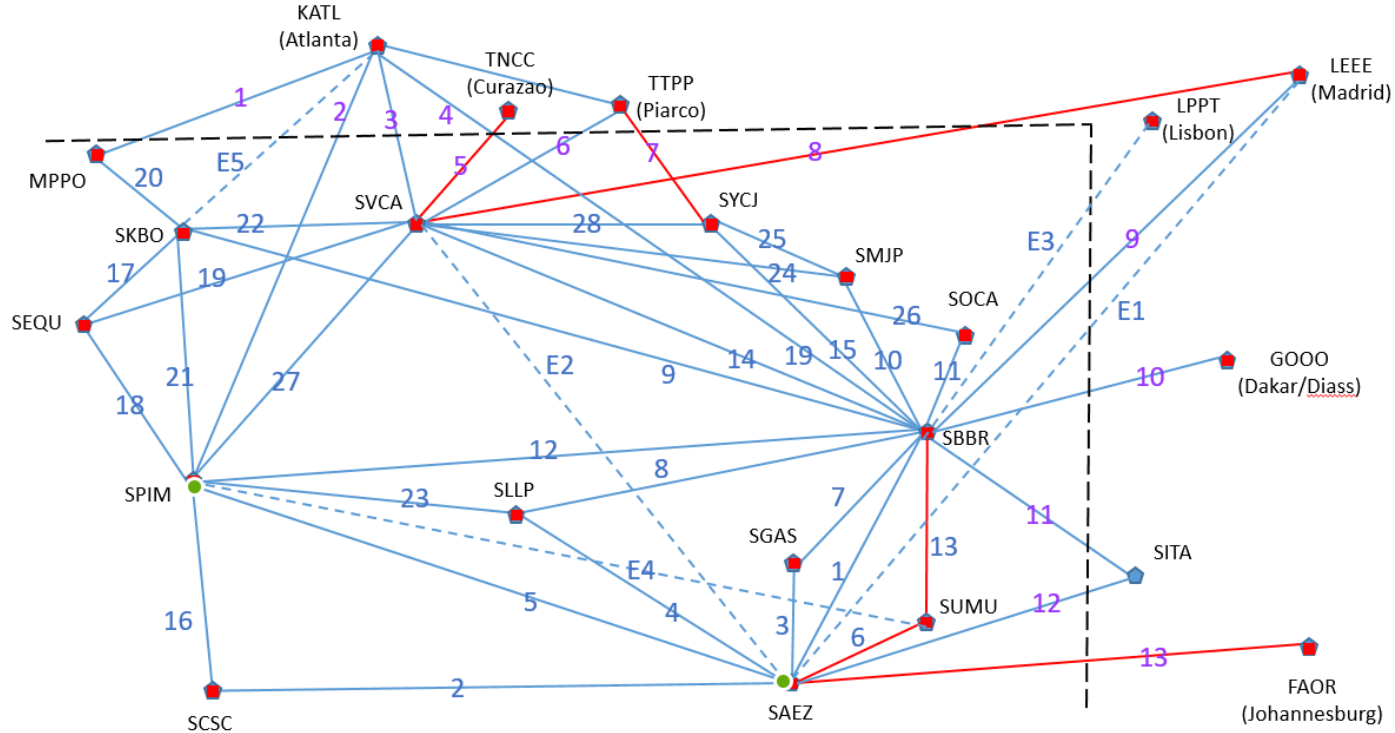
## Agenda Item 2

### Presentation of the approved Contingency Plans for Message Service





**AMHS Interconnections / Interconexiones AMHS  
ASBU COMI-B0/7 (21 February/Febrero 2022)**





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## Agenda Item 3

### Routing Tables







## ATS Messaging Management

**Routing Directory** Operational Area [HELP]

[AFTN Routing Table](#) / 
 [CIDIN Routing Table](#) / 
 [AMHS Routing Table](#)

Region or Country 
COM Centre 
Location 
Country 
AFTN Matrix

MD Common Name 
Country-Name 
ADMD-Name 
PRMD-Name

Destination	Existing Main	MTCU	Existing Altn	MTCU	Planned Main	MTCU	Planned Altn	MTCU
A		[X]		[ ]		[ ]		[ ]
B		[X]		[ ]		[ ]		[ ]
C		[X]		[ ]		[ ]		[ ]
D		[X]		[ ]		[ ]		[ ]
E		[X]		[ ]		[ ]		[ ]
F		[X]		[ ]		[ ]		[ ]
G		[X]		[ ]		[ ]		[ ]
H		[X]		[ ]		[ ]		[ ]
K		[X]		[ ]		[ ]		[ ]
L		[X]		[ ]		[ ]		[ ]
M		[X]		[ ]		[ ]		[ ]
MB		[X]		[ ]		[ ]		[ ]
MD		[X]		[ ]		[ ]		[ ]
MG		[X]		[ ]		[ ]		[ ]
MH		[X]		[ ]		[ ]		[ ]
MK		[X]		[ ]		[ ]		[ ]
MM		[X]		[ ]		[ ]		[ ]

**View Operational Data**

- ▶ Network Inventory
- ▶ **Routing Directory**
- ▶ Address Management
- ▶ User Capabilities Management
- ▶ Statistics
- ▶ Static Report
- ▶ COM Charts

**Miscellaneous Functions**

- ▶ Support Functions
- ▶ View Bulletin Board
- ▶ View AIRAC Cycle
- ▶ AMC Operator Details
- ▶ Documentation Part of AMRD
- ▶ Path Function
- ▶ Convert AFTN Address
- ▶ AFTN Country Code and AMHS PRMD
- ▶ View ANP Locations
- ▶ Regions
- ▶ Send E-Mail to User Groups
- ▶ Archived Data

**AMHS MD Contacts**

- ▶ Persons and Contacts



### View Operational Data

- ▶ Network Inventory
- ▶ **Routing Directory**
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### Miscellaneous Functions

- ▶ Support Functions
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### AMHS MD Contacts

- ▶ Persons and Contacts

## ATS Messaging Management

### Operational Area [HELP]

**AFTN Routing Table**
**CIDIN Routing Table**
**AMHS Routing Table**

Region or Country	COM Centre	Location	Country	AMHS Matrix
<input type="text" value="SAM"/>	<input type="text" value="SOCA"/>	<input type="text" value="CAYENNE-FELIX-EBOUE"/>	<input type="text" value="Guyane Francaise"/>	<input type="text" value="OPER.214"/>

MD Common Name	Country-Name	ADMD-Name	PRMD-Name
<input type="text" value="FRENCH GUIANA"/>	<input type="text" value="XX"/>	<input type="text" value="ICAO"/>	<input type="text" value="FRENCH GUIANA"/>

Destination				Existing Main		Existing Alternate		Planned Main		Planned Alternate		Comments
C	ADMD	PRMD	O	COM	M	COM	M	COM	M	COM	M	
XX	ICAO	AG		SBBR	[ ]	(SVCA)	[ ]		[ ]		[ ]	APAC (AG)
XX	ICAO	AN		SBBR	[ ]	(SVCA)	[ ]		[ ]		[ ]	APAC (AN)
XX	ICAO	ANSA BH		SBBR	[ ]	(SVCA)	[ ]		[ ]		[ ]	EUR/NAT (LQ)
XX	ICAO	AUSTRALIA		SBBR	[ ]	(SVCA)	[ ]		[ ]		[ ]	APAC (Y)
XX	ICAO	AUSTRIA		SBBR	[ ]	(SVCA)	[ ]		[ ]		[ ]	EUR/NAT (LO)
XX	ICAO	AY		SBBR	[ ]	(SVCA)	[ ]		[ ]		[ ]	APAC (AY)
XX	ICAO	BANGLADESH		SBBR	[ ]	(SVCA)	[ ]		[ ]		[ ]	APAC (VG)
XX	ICAO	BELGIUM		SBBR	[ ]	(SVCA)	[ ]		[ ]		[ ]	EUR/NAT (EB)
XX	ICAO	BHUTAN		SBBR	[ ]	(SVCA)	[ ]		[ ]		[ ]	APAC (VQ)
XX	ICAO	BKPR		SBBR	[ ]	(SVCA)	[ ]		[ ]		[ ]	EUR/NAT (BK)
XX	ICAO	BOLIVIA		SBBR	[ ]	(SVCA)	[ ]		[ ]		[ ]	SAM (SL)
XX	ICAO	C		SBBR	[ ]	(SVCA)	[ ]		[ ]		[ ]	NAM (C)
XX	ICAO	CAMBODIA		SBBR	[ ]	(SVCA)	[ ]		[ ]		[ ]	APAC (VD)
XX	ICAO	CHINA		SBBR	[ ]	(SVCA)	[ ]		[ ]		[ ]	APAC (Z)



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## Agenda Item 4

**Review of the information  
constant in Vol II of the ANP  
CAR/SAM**





**TABLE CNS II-1 - AERONAUTICAL FIXED TELECOMMUNICATIONS NETWORK (AMHS/AFTN) PLAN**

State/Station	Category	Requirement				Remarks
		Type	Signaling Speed	Protocol	Code	
1	2	3	4	5	6	7
<b>ANGUILLA</b>						
Anguilla-S						
Port of Spain	S	LDD/d	2400	None	IA-5	E/CAR
<b>ANTIGUA AND BARBUDA</b>						
Antigua-S						
Port of Spain	S	LDD/d	2400	None	IA-5	E/CAR
<b>ARGENTINA</b>						
Ezeiza-M						
Asunción	P1	SAT/d and MPLS	64 k	TCP/IP	IA-5	REDDIG
Brasilia	M	SAT/d and MPLS	64 k	TCP/IP	IA-5	REDDIG
La Paz	T	SAT/d and MPLS	64 k	TCP/IP	IA-5	REDDIG



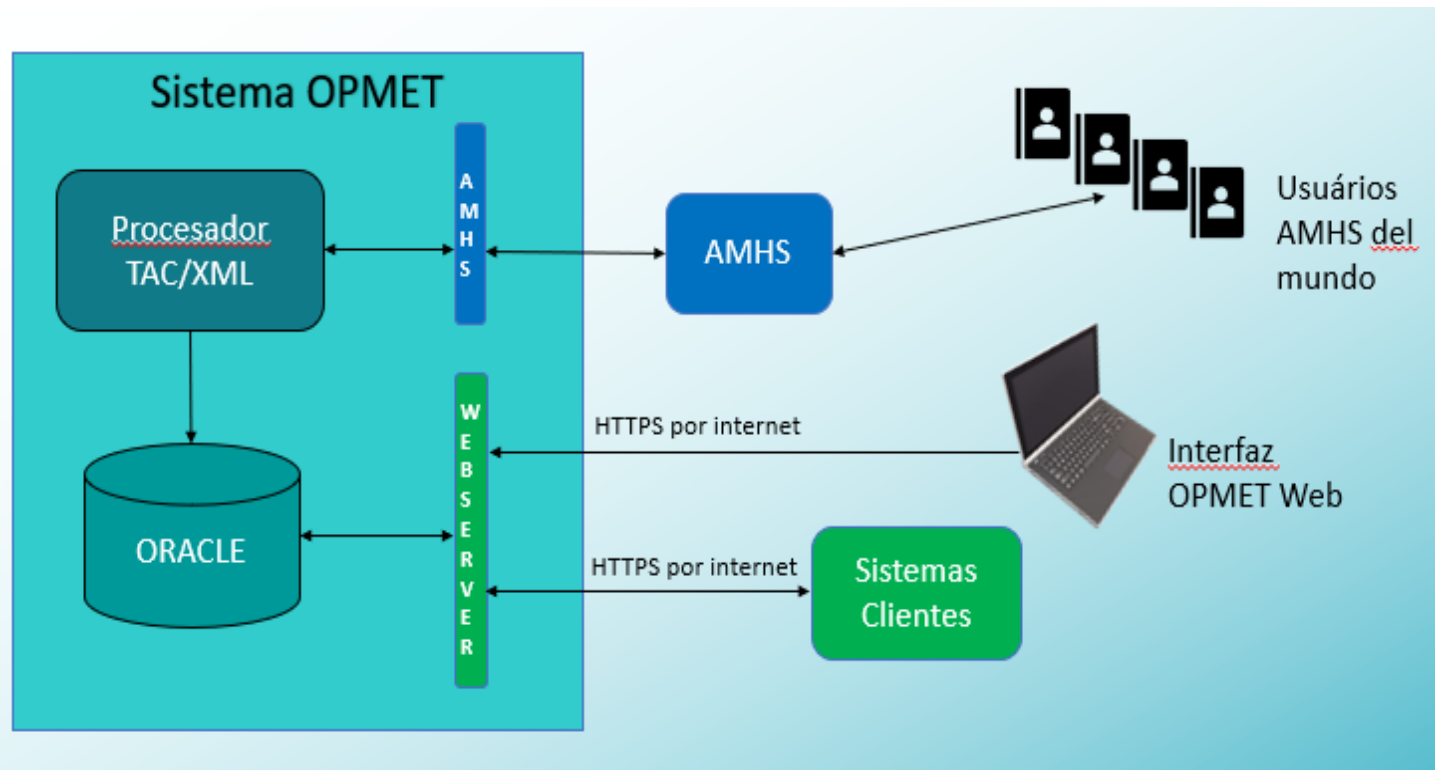
# Virtual Meeting COM AMHS/3

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## Agenda Item 5

### Other subjects







Inicio

Mensajes Meteorológicas ▾

Informes ▾

## Edición de Registro de Observaciones EMS

Mensajes Meteorológicas > Edición de Registro de Observaciones EMS

Registro de Observación

Nubes

Informaciones de la Pista

Condición de Tiempo

Mensaje

### Registro de Observación

Tipo de Observación\*

REGULAR

ESPECIAL

LOCAL

PARCIAL

Seleccionar los Tipos de mensajes\*

METAR

SPECI

Fecha\*

12/08/2020

Hora UTC\*

12:00

Localidad\*

SBBR

nombre de la Localidad\*

BRASILIA / Pres. Juscelino Kubitschek, DF

### Visibilidad

Vis. Predominante\*

2000

Vis. Mínima

0000 dam

Dirección

### mensaje Codificado

#### Registro de Observación

Tipo de mensaje: METAR Fecha: 12/08/2020

Hora UTC: 12:00 Localidad: BRASILIA / PRES. JUSCELINO

KUBITSCHEK, DF

Tipo de Observación: REGULAR

Vis. Predominante: 2000

#### Nubes

> 3 - Nube(s)

#### Informaciones de la Pista

> Pista - 11

#### Condición de Tiempo

Código METAR: RERA

21 - CHUVA (NÃO CONGELANTE) - RECENTE

0 - NUVENS COBRINDO METADE OU MENOS DO CÉU, DURANTE

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SEGUENTE



Browser address bar: <https://amhsbr.decea.mil.br/taweb/loginPage>



# Departamento de Controle do Espaço Aéreo

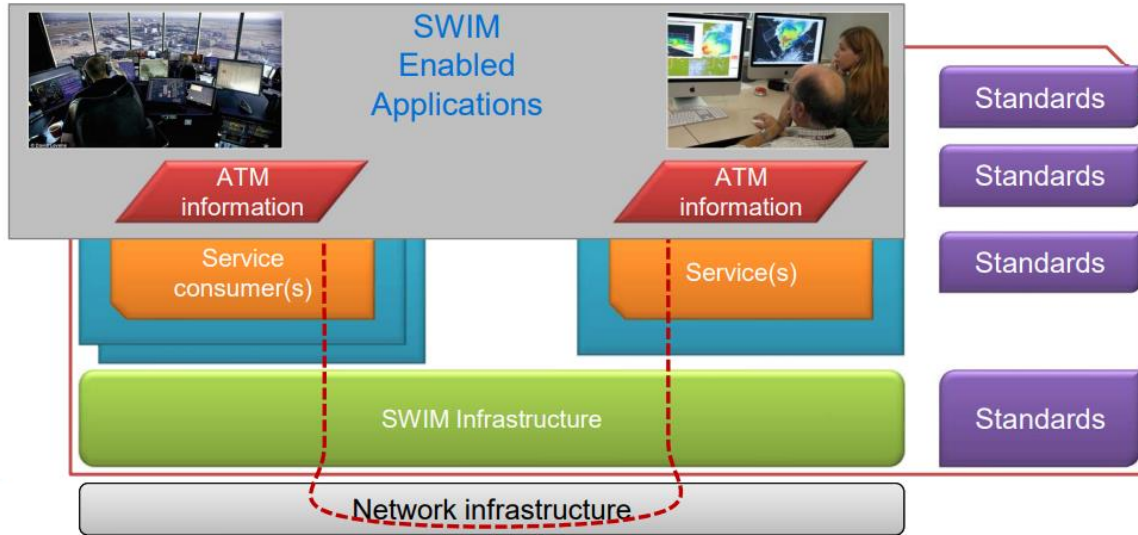
## AMHS WEB

User

Password

Login





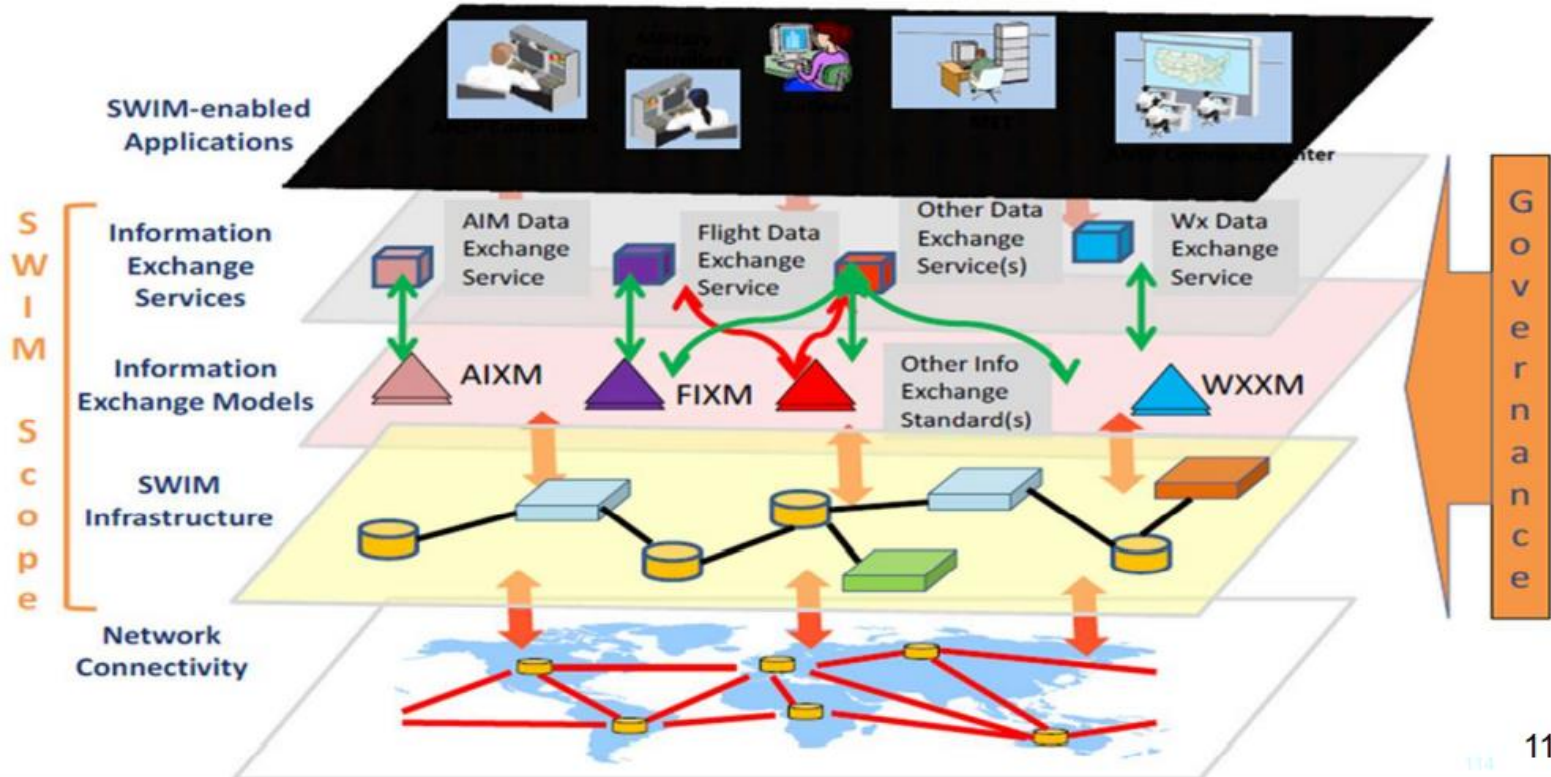
**SWIM** consists of **standards**, **infrastructure** and **governance** enabling the management of **ATM information** and its **exchange** between **qualified parties** via **interoperable services**.

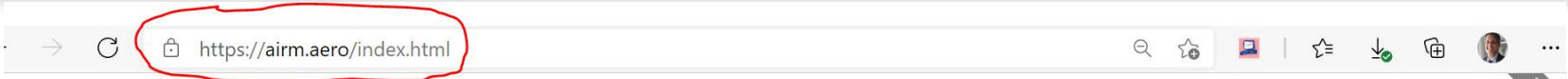


SWIM infrastructure is a set of **software components distributed** across a **network infrastructure** that enables **interoperability** between ATM (civil and military) systems including aircraft.

It provides connected systems with the technical means to support **application services** in **invoking** information services and non-functional services.

All of these services are **interoperable** by using **standard technologies** and a **common data representation**.





HOME

AIRM VIEWER

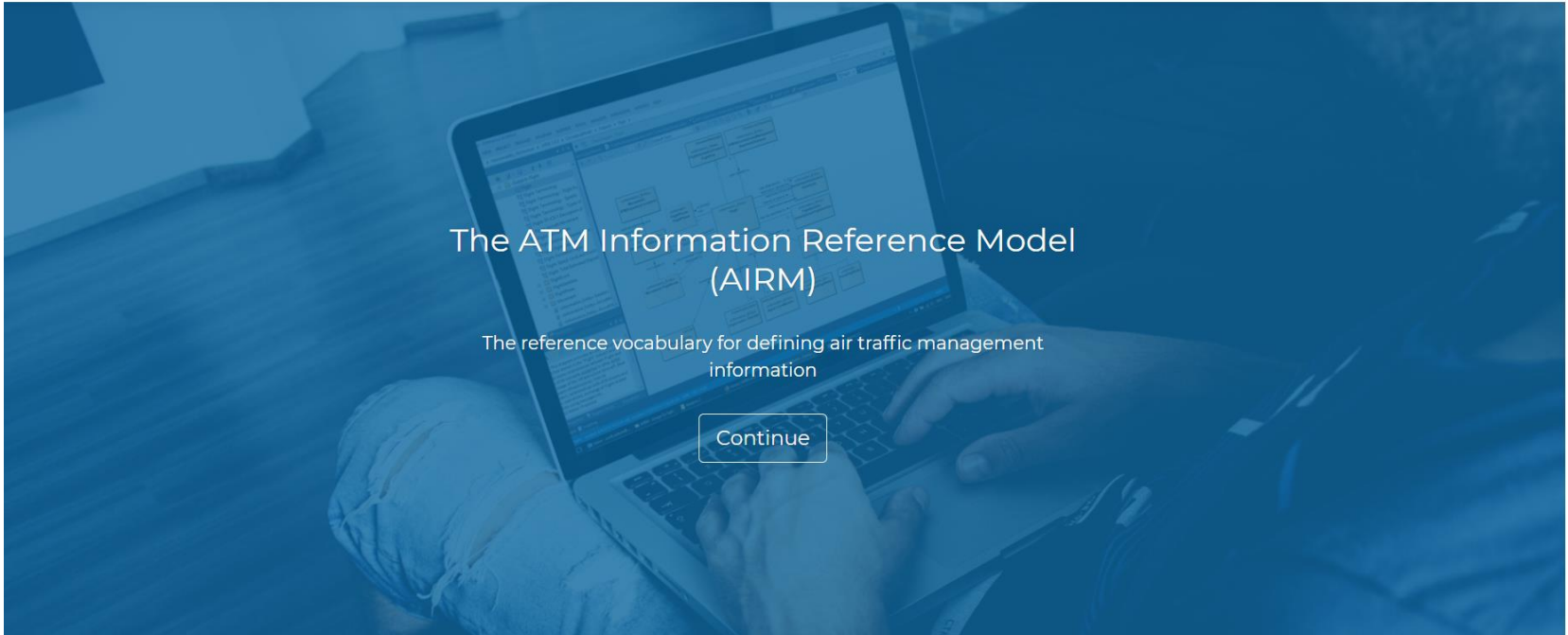
COMMUNITY

DOCS

FAQ

DEVELOPERS

BETA



# The ATM Information Reference Model (AIRM)

The reference vocabulary for defining air traffic management information

Continue



The **information exchanged** between interested parties must be **defined** so that it can be used correctly by **consumers** and **producers**.

**AIRM** (ATM Information Reference Model) is a common reference that helps ensure harmonization of **ATM information models**, reducing costs in sharing information in different environments.



**XML** is a **markup language** created by the World Wide Web Consortium (W3C) to define a **syntax** for encoding documents that both humans and machines could read. It does this through the use of tags that define the structure of the document, as well as how the document should be stored and transported.

It's probably easier to compare it to another markup language that you may be familiar with: the **Markup Language Hypertext (HTML)** used to **encode web pages**.



# Modelos de Intercambio de Información AIRM



AIRM & Information  
Exchange Models ...

**FIXM** → Flight Information Exchange Model (exchange model capturing Flight and Flow information that is globally standardised)

**AIXM** → Exchange model capturing Aeronautical information for the provision in digital format of the AIS information

**IWXXM** → Exchange model capturing Meteorological information to support the exchange of meteorological information

**AMXM** → AMXM is provided in support of Aerodrome Mapping Database (AMDB) data exchange.



## AIRM Information Exchange Models

<https://www.aixm.aero/>



AIXM

<https://www.fixm.aero/>



FIXM

<https://old.wmo.int/wiswiki/>



IWXXM



# ISO 19136 Geography Markup Language (GML)

AIXM5 design decisions are based on the adoption of a number of international standards: :

- Use **GML** (Geography Markup Language) for encoding geographical information – position, areas, routes, etc.
- Use the **ISO19100** series of geospatial information standards as data modeling framework. This would maximize the chances of cross-domain interoperability.
- Use **UML** (Unified Modeling Language) for developing **AIXM 5 Conceptual Model**.
- exhaustive **metadata** incorporation into the model has been identified.

Technical Design Decisions

ISO19100  
series

UML

GML 3.2



Metadata

Integrity

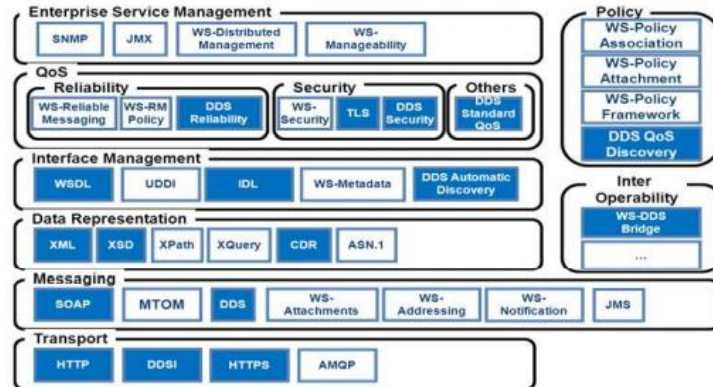
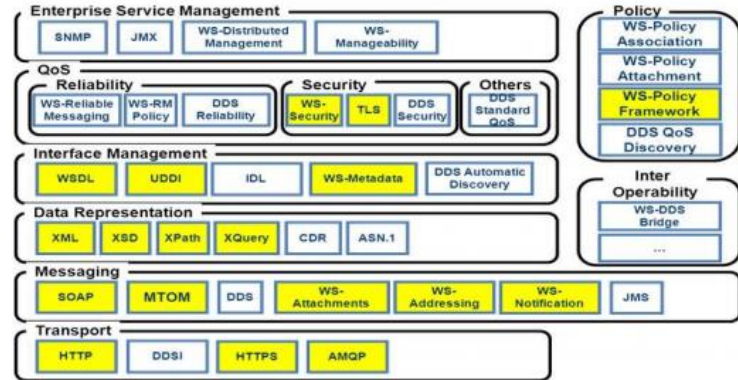
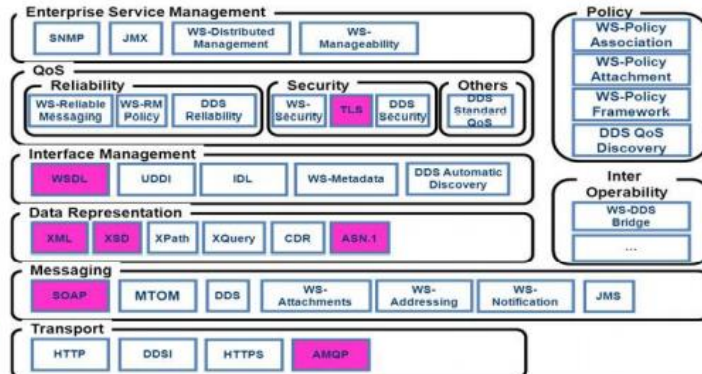
Data Quality Mandates



## SESAR SWIM PROFILES

Reduce complexity with technical profiles tailored for specific usage:

- **Yellow profile** for non critical information (AIM, Weather, ...)
- **Blue profile** for critical information (Flight Object)
- **Purple profile** to accommodate air-ground
- **Green profile** for military





North American  
Central American  
and Caribbean  
(NACC) Office  
Mexico City

South American  
(SAM) Office  
Lima

ICAO  
Headquarters  
Montréal

Western and  
Central African  
(WACAF) Office  
Dakar

European and  
North Atlantic  
(EUR/NAT) Office  
Paris

Middle East  
(MID) Office  
Cairo

Eastern and  
Southern African  
(ESAF) Office  
Nairobi

Asia and Pacific  
(APAC) Sub-office  
Beijing

Asia and Pacific  
(APAC) Office  
Bangkok



**THANKS**