



SWIM

System Wide Information Management

Leading technology for efficient and reliable SWIM solutions

indra Avitech

Your seamless access to aeronautical data

We provide you with full SWIM compliant solutions to bring your operations to the highest level of efficiency while following all ICAO GANP / ASBUs, SESAR and NextGen principles.

Our competence

The aviation industry has SWIM as a common goal, a complex concept to understand and to follow. Indra Avitech actively participates in SWIM Working Groups playing a leading role for future specifications. What makes us special is that we really get it!

This is why we can help you to implement the right solutions and make you one of the first to take an important step towards the implementation of SWIM. In order to achieve that, we bring together stakeholders able to exchange information in a standardized and interoperable manner, fostering shared situational awareness and collaborative decision making.

Serving your needs

We supply top performing systems that allow you to securely share information when and where it is required on a system-wide basis, with data being personalized, filtered and accessed as needed – tailored exactly to your individual requirements.

We are already aligned with ASBU Block „B1- SWIM“, which will provide access to a wide range of services enabling standardized information exchange and maximizing interoperability.

Our WFS service remains one of the three world-wide reference compliant implementations for the OGC WFS v2.0 specification.

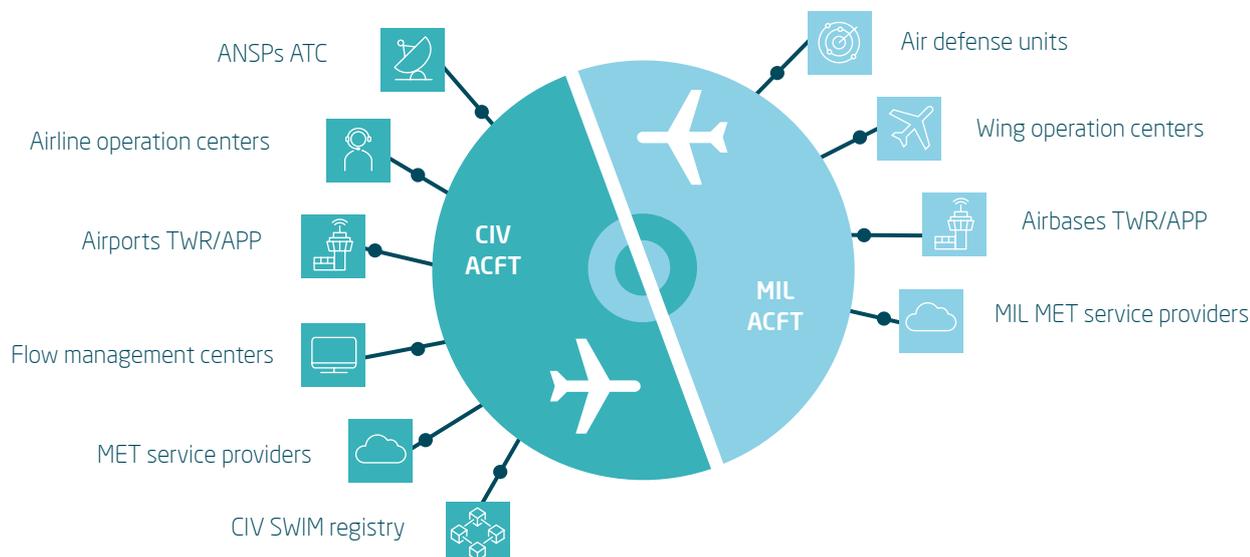
Indra Avitech MHS technology

Since 2005 Indra Avitech has been gradually developing a SWIM solution which conforms to the SWIM software architecture requirements of the EU ATM Masterplan, and the ICAO Manual on SWIM Concept (Doc 10039-AN/51 1). Ever since we have served the civil and military aviation market, continuously growing, researching and refining our technology to provide our customers with up-to-date, high quality solutions.

Applying a service-oriented approach and consistently decoupling producers from consumers of information, we ease your system evolution and increase its flexibility, agility and effectiveness.

Our commitment and enthusiasm is reflected in our customers' satisfaction – exactly what we are striving for in every project we are involved in.

Indra Avitech SWIM environment



Indra Avitech guides your processes safely and supports you in establishing your best SWIM solution.

You can rely on all our products and solutions to be adapted in detail to your requirements, resulting in exactly the system you need. Take a look at our modular SWIM product range:

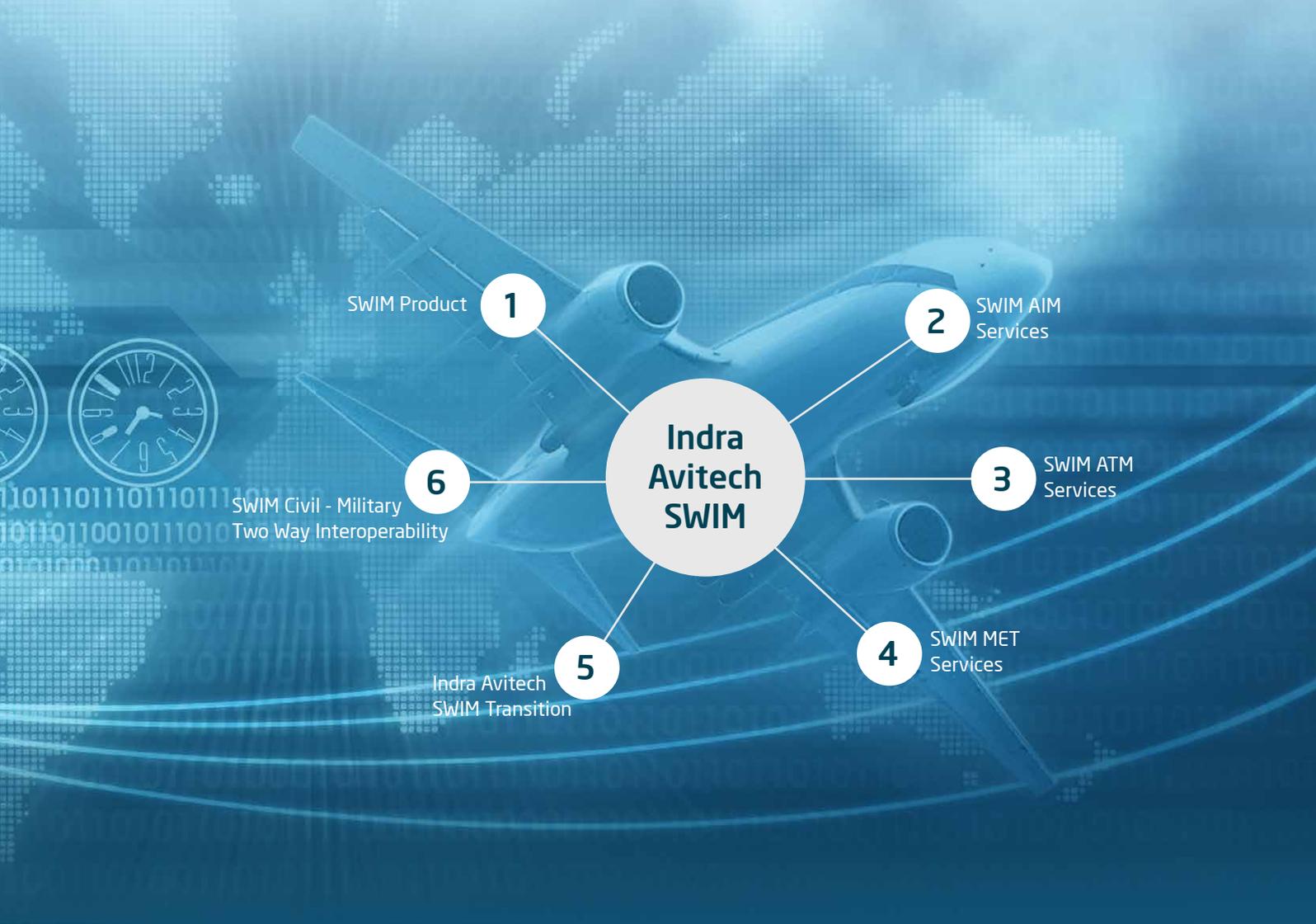
1 SWIM product

The Indra Avitech complete SWIM Product combines modern software architecture with aeronautical know-how, providing you with a single access point for all your applications.

The Indra Avitech SWIM Solution consistently decouples client applications from services, and data providers from data consumers. It enables seamless service communication independent of the service location and offers total communication flexibility, supporting data on demand and instant notification.

2 SWIM AIM Services

The Indra Avitech SWIM AIM Services provide information in the latest data exchange format (AIXM 5.1.1) available for NOTAM, PIB, AIP and static data. All of this, in combination with the seamless access to both civil as well as military data, makes Indra Avitech SWIM the perfect communication solution for your AIM mission, both civil and military.



3 SWIM ATM Services

The Indra Avitech SWIM ATM Services provide an invaluable toolset for quickly connecting your systems with the air traffic management environment. We provide services for consuming data from the European Union Network Manager (e.g. NM B2B FPL, NM B2B ADD), a FPL service supporting FIXM 4.0 messaging, an OLDI 4.2 service for ATS Interfacility Data Communication conforming also to EU FMTP 2.0 and ADEXP 3.1, weather services and a Non-Verbal-Communication service for efficient tower-to-center communication.

4 SWIM MET Services

The Indra Avitech SWIM MET Services represent the pioneering implementation of the WMO Aviation Task Team OPMET XML 1.0 scheme, in the ICAO environment also known as IWXXM. They provide the full SWIM solution as required by ICAO Annex 3 Amendment 77(2016) and beyond. Currently, our SWIM product supports the storage and distribution of all IWXXM versions, including IWXXM 3.0 over a SWIM Yellow Profile compliant interface.

5 SWIM Transition

The Indra Avitech SWIM Product not only focuses on the future but also on current systems. Our goal is to lower your investment by providing a gradual transition and integration of existing or legacy systems. We provide services for bi-directional bridging between the AFTN/SWIM and AMHS/SWIM worlds. The AMHS X.400/P3 Protocol Service makes it possible to connect any AMHS MTA compliant with X.400/ICAO AMHS SARPs.

6 SWIM Civil - Military Two Way Interoperability

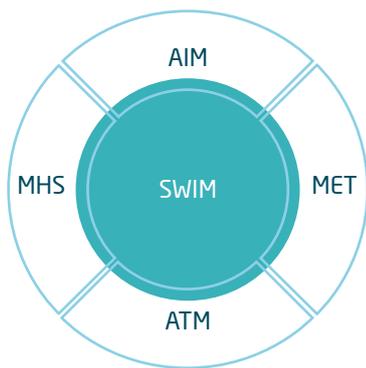
Based on well-designed protection profiles, labelling and the latest cryptographic algorithms, Indra Avitech SWIM establishes what was assumed impossible: to exchange information between high and low security domains in the military environment as well as between civil and military units.

With almost a decade of operational experience Indra Avitech SWIM provides a fine-tuned, secure communication bridge which is unique on the market.



Technology you can trust

- The only available complete Civil and Military SWIM Solution including interoperability
- Interoperability to European Union Network Manager
- AIXM 5.1.1, FIXM 4.0, IWXXM 1.0/2.0/3.0
- Server backwards compatibility
- Compliant to the OGC WFS v2.0 specification



Experience & Know-how

Our unique SWIM Product integrates seamlessly AIM Services, ATM Services, MET Services, and SWIM Messaging using a service-oriented approach. The services are also available across the security boundaries between civil and military systems by taking necessary protection profiles into account. The SWIM Server backwards compatibility ensures easy upgrades. The latest version of AIXM, FIXM, and IWXXM available in the core, including the OLDI and ADEXP standards.

For more than 40 years Indra Avitech has served the aviation industry as one of the leading international developers of aeronautical IT systems worldwide. Today Indra Avitech supplies more than 45 customers in 55 countries on six continents with state-of-the-art aeronautical information technology.

Please ask for our complete product range or visit our website www.indra-avitech.aero

Indra Avitech

Indra Avitech represents the Center of Excellence within the Indra Group for AIM, MHS, SWIM and MET, complementing the Indra ATM offering worldwide. The Indra Group's global business model is based on high-end innovation and technology, currently supporting 4000 air traffic control installations in over 160 countries.

The group is all set for ICAO Aviation System Block Upgrades (ASBUs): Compliance with Block 0 & Block 1 and paving the way to Blocks 2 & 3.

 **ASBU-Compliance**



At the core

We guarantee
the right
Aeronautical
Information
at the right
time.

Indra Avitech reserves
the right to modify
these specifications
without prior notice

www.indra-avitech.aero

Indra Avitech GmbH Central Office
Bahnhofplatz 3
88045 Friedrichshafen, Germany
Email: marketing@indra-avitech.aero
Phone: +49 (0) 7541 282-0
Fax: +49 (0) 7541 282-199
Offices in: Langen, Konstanz & Bratislava

indra Avitech