

MIDAD Project

IDS Vision

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- ✈ MIDAD Scope
- ✈ Solution High Level Architecture
- ✈ IDS Air Navigation Suite
- ✈ Proposed Implementation Schedule

Drawbacks related to the current operational structure and provision of AIS/AIM services in the MID Region were identified including:

- ✈ inconsistent quality of data;
- ✈ lack of cross border aeronautical information coherence checking;
- ✈ duplicated, redundant and dispersed investments in the development and
- ✈ maintenance of systems by both Aeronautical Information Services and the end users;
- ✈ no single integrated aeronautical information database has been implemented;
- ✈ no regional or sub-regional AIS database has been established;
- ✈ high maintenance costs for each State and end users; and
- ✈ lack of interoperability between systems.

For such reason the MIDAD shall provide to Data Providers and Data Users:

- ✈ a reliable source of aeronautical information;
- ✈ improved data quality enabled by constant data checking, including NOTAM validation and cross-border data coherence verification;
- ✈ ensure data integrity a secure channel for timely and efficient electronic distribution of aeronautical information to all users;
- ✈ reduced workload throughout the complete AIS process;
- ✈ reduced investment costs in the development and maintenance of local systems by both AIS Units and airspace users; increased availability of data through easy access.

✈ Users

✈ Data

✈ Services

✈ Access Modes

✈ Data/Service Providers

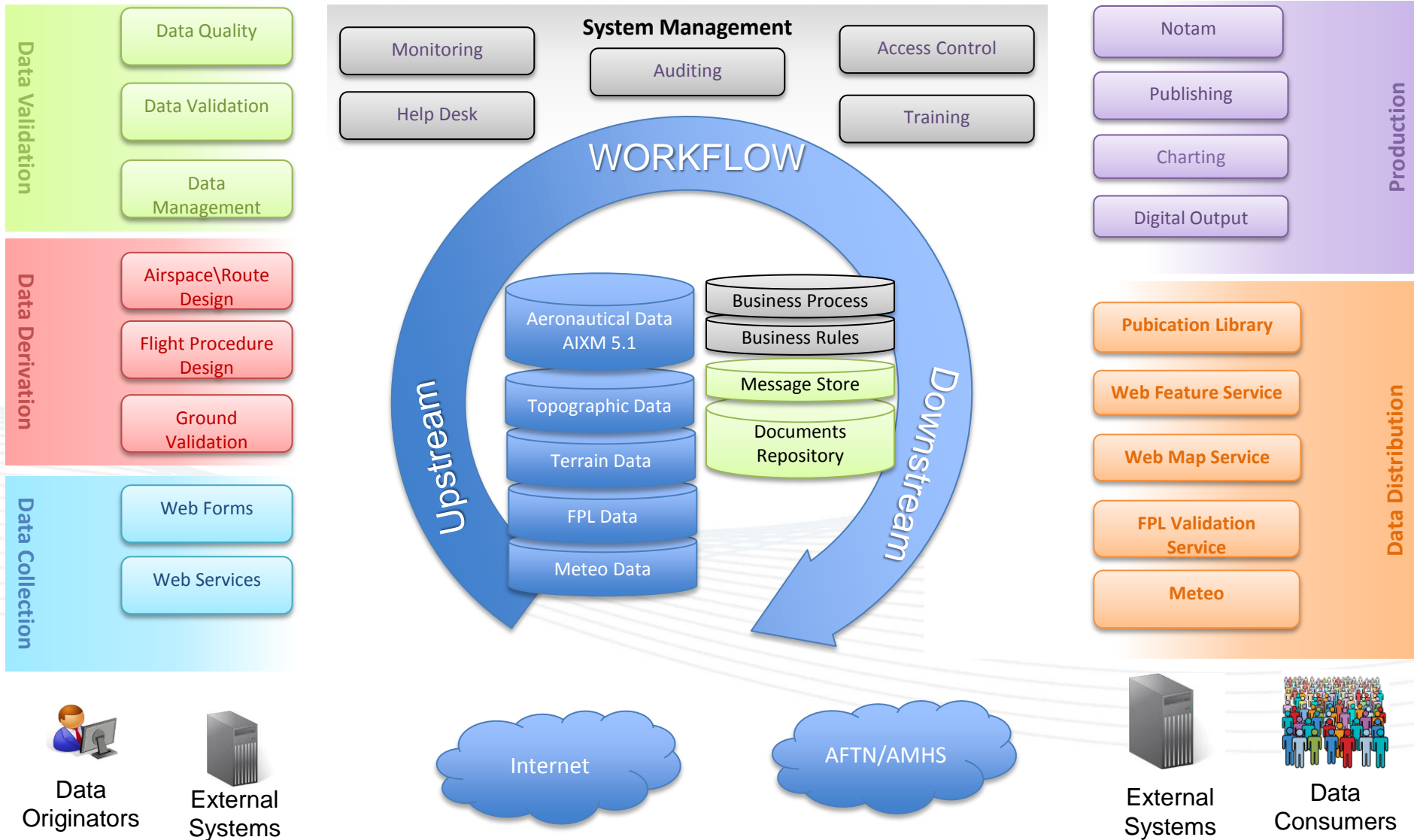
- ✈ AIS Offices, NOTAM Offices, ARO Units;
- ✈ AIP Production Departments, MAP Production Departments;
- ✈ Procedures Design Departments;
- ✈ Military Authorities (AIS, ARO, AIP/MAP, TWR, APP, FIS);

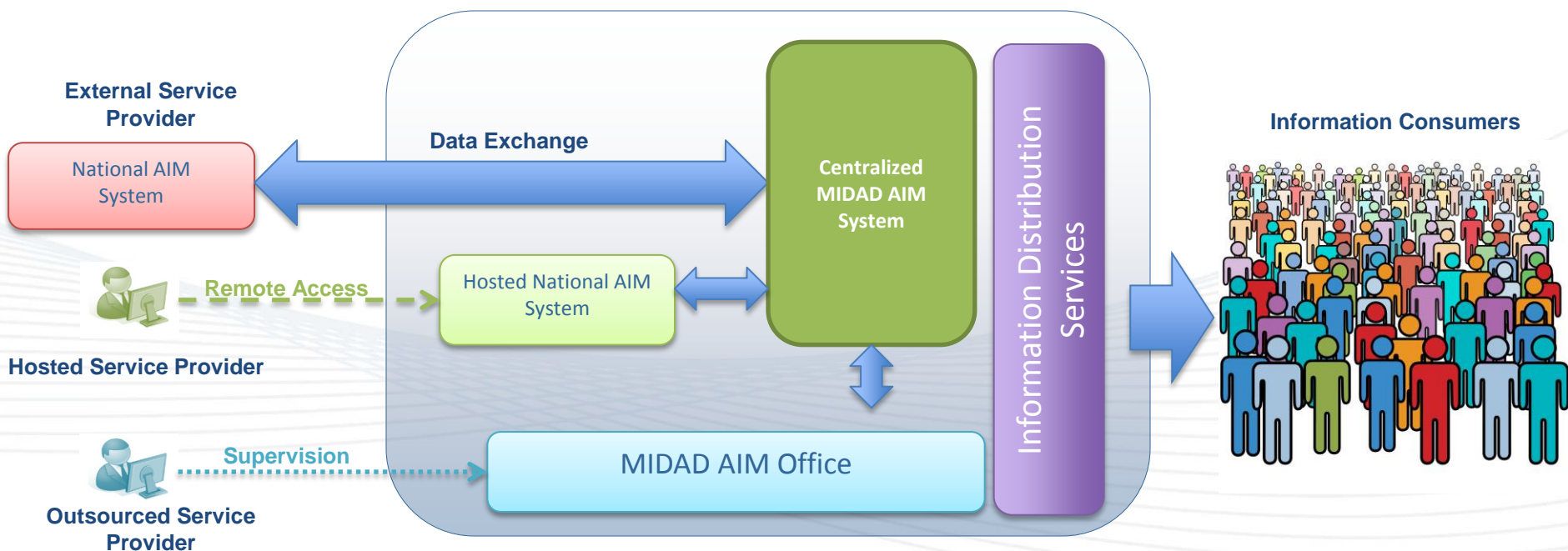
✈ Data/Service Consumers

- ✈ NavData Integrator companies
- ✈ ATM Systems (TWR, APP, ACC, FIC, FIS);
- ✈ Airline Systems (Briefing, AOC);
- ✈ General Aviation (Briefing);
- ✈ Aerodrome operators;
- ✈ Metrology offices; and

✈ **The MIDAD System will manage the following data:**

- ✈ Aeronautical Static Data (AIXM 4.5, 5.1 scope, extensions)
- ✈ Aeronautical Obstacle Data
- ✈ Aerodrome Mapping Data
- ✈ Digital Terrain Data
- ✈ Topographic Data (rivers, cities, road, etc.)
- ✈ NOTAM, SNOWTAM, ASHTAM, BIRDTAM
- ✈ OPMET Data, WAFS Data (later BUFR)
- ✈ AIP according to ICAO Annex 15 and AIS Manual (Doc 8126)
- ✈ MAPs and Charts according to ICAO Annex 4 and Aeronautical Chart Manual

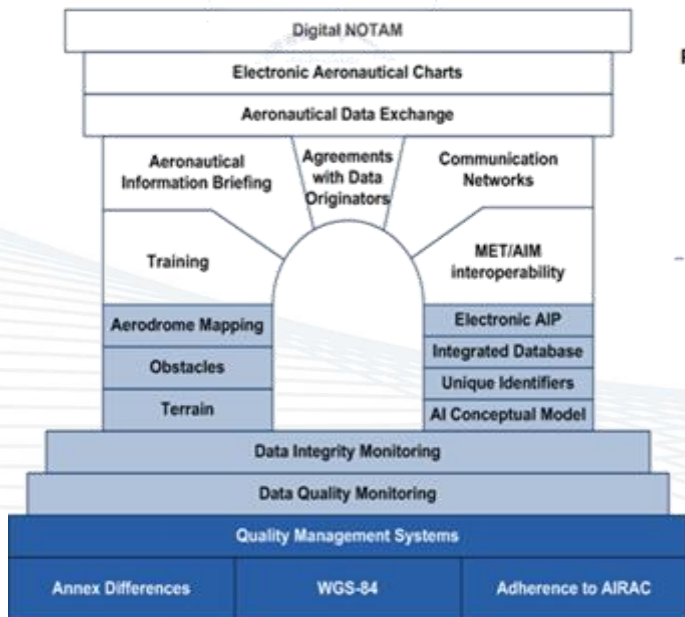




- ✈ **Electronic Connection with Data Originators.** Necessary to guarantee that data comes from the right source, at the right time and having the required quality.
- ✈ **Workflow Engine.** Key component for the definition, implementation and tracking of the Aeronautical Data Process.
- ✈ **Static & Dynamic Data Integration:** The system shall allow to manage within the same framework all the Aeronautical Events disregarding if they are temporary or permanent and if they shall be Published via NOTAM, Supplement or AIRAC amendment.
- ✈ **Digital NOTAM.** Implementation of Digital NOTAM is a key step for the transition to AIM as it enables:
 - ✈ NOTAMs graphic visualization
 - ✈ NOTAMs automatic management validation
 - ✈ More Accurate Briefing

- ✈ **Scalability:** Necessary to manage the evolution of the system in terms of:
 - ✈ Number of Users
 - ✈ Amount of Data
 - ✈ Services Provided

- ✈ **Implementation Flexibility:** The system shall allow a very flexible configuration of the Air Service Providers access mode. It shall be possible for Service Providers to host or outsource both single services and the full national system.



Phase 3: Information Management

- WP-09 Aeronautical Data Exchange
- WP-10 Communications Networks
- WP-12 Aeronautical Information Briefing
- WP-16 Training
- WP-18 Agreement with Data Originator
- WP-19 Interoperability with Meteorological Products
- WP-20 Electronic Aeronautical Charts
- WP-21 Digital NOTAM

Phase 2: Going Digital

- WP-01 Data quality
- WP-02 Data integrity
- WP-06 Integrated Aeronautical Database
- WP-07 Unique Identifiers
- WP-08 AICM
- WP-11 eAIP
- WP-13 Terrain
- WP-14 Obstacles
- WP-15 Aerodrome Mapping

Phase 1: Consolidation

- WP-03 Airac adherence
- WP-04 Monitoring differences in Annex 4 and 15
- WP-05 WGS-84
- WP-17 Quality

