ATFM Suite
A Scalable Integrated Air Traffic Flow Management System

Benefits
The main benefits delivered by the IDS AirNav ATFM Suite are summarized as follows:

- User-friendly interface;
- ATFM and ASM features available in a single system;
- Comprehensive situational display with both static and dynamic data layers;
- Distributed, web-based human machine interfaces;
- Leading-edge web technologies and open standards (including AIXM/FIXM and legacy formats);
- Modular and scalable architecture.

Air Space Management - Air space usage and Activation
Air Situation Display - Live Traffic and Weather
Air Situation Display - Aircraft Trajectories and Flight Plan
Air Space Management - Booking Form
The need to modernize and streamline the global ATM system is clear. The benefits of ATFM will be seen in a number of areas: capacity improvements, environmental savings, cost reductions, fewer delays and the continuous improvement of today’s renowned safety in air transport. The benefits, however, do not just accrue to the airlines and the people who fly with them. By investing in a solid future for air transportation systems now, governments will be setting course for the future growth of the global economy.

**The IDS AirNav ATFM Suite:**

- Provides Air Navigation Service Providers (ANSPs), aircraft operators and airport operators with an Integrated Air Traffic Flow Management system for enhancing safety, improving efficiency and predictability from gate to gate, ensuring fair and equitable use of all airspace and enabling future curb to curb efficiency improvements;
- Is designed to provide ANSPs with tools to effectively meet the modern challenges of Air Traffic Flow Management and Airspace Management;
- Supports rolling ATFM-ASM processes in a collaborative way with airspace users and other affected stakeholders;
- Uses leading-edge web technologies and standards that have been selected to deliver the benefits of modern architecture in terms of integration and flexibility;
- Is designed to be scalable and modular to support different emerging needs and a wide range of customers.

**ATFM Suite Main Functionalities**

The IDS AirNav vision extends the common definitions of ATFM which address the Strategic, Pre-Tactical and Tactical phases of air traffic management performed by the ANSP authority in collaboration (e.g., Collaborative Decision Making (CDM)) with aircraft and airport operators. In particular, the main operational needs to be faced are the following:

- A timely evaluation of demand vs capacity imbalances and associated impacts;
- Evaluation process constantly integrating operational constraints and weather forecasts;
- Better solutions (TMIs) to improve efficiency and capacity usage;
- Multiple scenario evaluation to solve imbalances with one TMI or multiple combinations;
- Impact assessment of special uses of airspace on traffic intention for the day after;
- Improved solutions around predicted severe weather;
- Enhanced stakeholders’ situational awareness via CDM sessions;
- Assistance for ATS units in planning and managing future workload;
- The fundamental functions of the IDS ATFM suite are:
  - Demand forecast over ATM network resources with filtering capabilities;
  - 4D Trajectory modelling engine;
  - ATM Network resource configuration with associated capacities;
  - User interface showing geospatial data (2D/3D) and tabular forms;
  - Flight data management from multiple sources in standard formats (including FIXM);
  - Display of meteorological data and weather products;
  - Interface to support special use of airspace reservation;
  - Booking list and calendar views;
  - Coordination with ANSPs’ internal units and stakeholders via a CDM shared board.