CADAS-IMS

COMSOFT'S AERONAUTICAL DATA ACCESS SYSTEM – INFORMATION MANAGEMENT & SERVICES

HIGHLIGHTS

- Fully automated NOTAM and OPMET database
- Local PAMS database and documentation service
- Fully standard compliant syntactic and semantic message checks
- Integrated self-briefing/home-briefing functionality
- ARINC/AIXM import
- Open system-to-system interfaces
  - EAD System Interface (ESI)
  - AFTN/AMHS
  - SOAP, WMS, WFS
- Based on a modern, extensible IT architecture

COMSOFT

CADAS – INFORMATION MANAGEMENT & SERVICES

CADAS-IMS (COMSOFT´s Aeronautical Data Access System – Information Management & Services) is a sophisticated service integration platform for modern AIS applications. Plug-in modules like NOTAM and OPMET databases allow to individually tailor each implementation according to the customer's need. Configurable program workflows and filters guarantee the highest possible degree of adaptability.

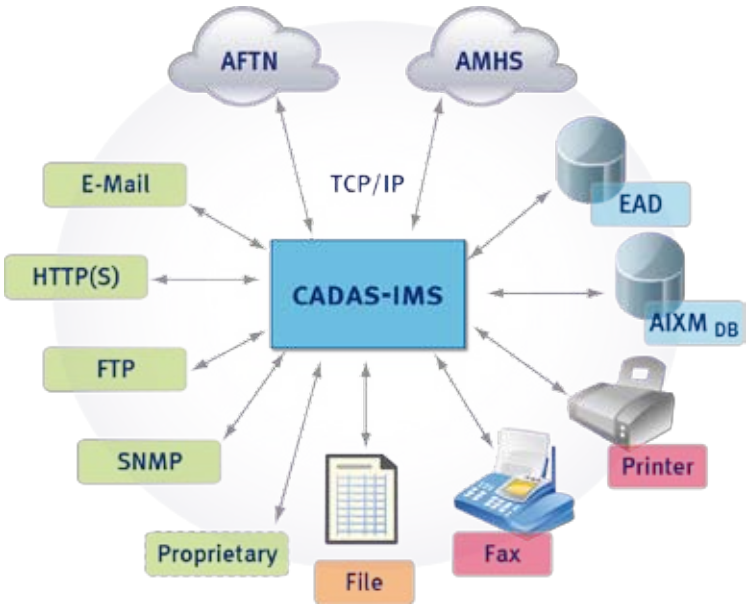
CADAS IMS Information Management & Services

CADAS-IMS has been designed for utmost reliability and expandability and can be fully integrated with any 3rd party products. The system is based on leading-edge Internet technologies such as AJAX and portlet based web browsers. With its redundant configuration it guarantees continuous system availability and data security. CADAS-IMS combines forward-looking technologies like AIXM, GIS and Web Services with highly efficient and sound industry standards. Maintenance effort is reduced to a minimum owing to an advanced client/server architecture that features a central management functionality and no need for special software installations on the client terminals.

CADAS-IMS's ability to export its services over open standards interfaces such as Web Services, Web Feature Services and SOAP makes it a preferred choice for CAAs with the interoperability of their existing systems in mind. Furthermore, the outstanding extensibility/expandability of CADAS-IMS and its capability to consume services from external applications makes it an ideal integration platform in a SOA environment.

CADAS-IMS applications meet the requirements that are made on operational messaging, integrated self-briefing, NOTAM and OPMET services. The dynamic, web based HMI with its easy-to-handle graphical user interface and its integrated GIS viewer for static and dynamic data offers quick access to all features and fosters intuitive operation by means of convenient functions and various system services. Moreover, its web based approach makes it possible to access the user interfaces for operation and administration from any connected workstation, while also allowing to integrate the entire application front-end into any HTML capable environment.

Overview of the Operational Context



PLUG-IN MODULES

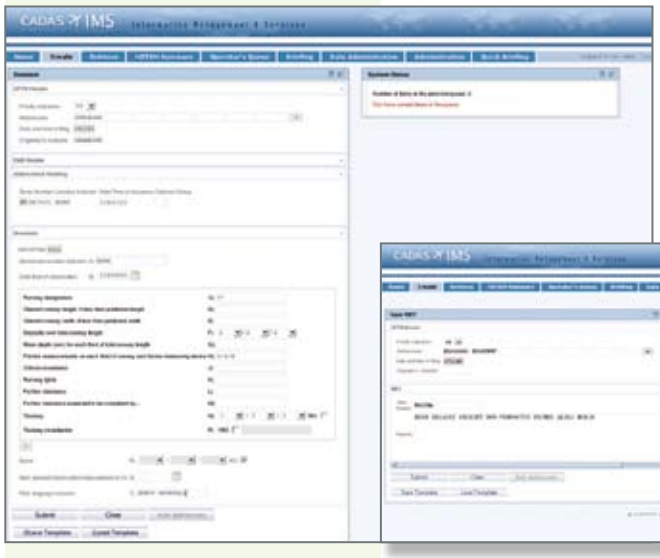
CADAS-IMS consists of a core system providing basic functionalities and a set of plug-in modules as additional complements. The system provides an integrated, context sensitive online help system that is accessible from every screen of the application.

NOTAM

- Fully automated NOTAM database
- International standard NOTAM format as per ICAO Annex 15
- In accordance with ICAO Doc 8126 and EUROCONTROL operating procedures for AIS dynamic data (OPADD)
- Convenient and input checking forms for
  - NOTAM
  - Snowtam
  - Ashtam
  - Free text
- NOTAM related message types such as RQN, RQL, NOTAM Checklist, NOTAM summary
- NOTAM database accessible through Web Services
- Suggestion boxes for selection from a context-sensitive list
- Syntactical and semantic validation of user input
- Easy and flexible search engine for stored NOTAMs
- EAD Interface for data provider and data user
- Trigger NOTAM interface for eAIP
- Visualization function for stored messages
- Intelligent text modules for Item E, e.g. auto-text based on Q-line
- Context sensitive browsing and linking to objects in static database
- Support for US Class 1 NOTAM
- Geographical extensions for standard NOTAM

NOTAM Creation

NOTAM Retrieval



SNOWTAM Creation

OPMET

- Fully automated OPMET database for
  - METAR
  - TAF
  - SPECI
  - SYNOP
  - SIGMET
  - GRIB
  - BUFR
  - etc.
- Conforming to the applied WMO standards
- Web Service access for external applications
- Syntactical and semantic validation of manually entered OPMET reports
- Highly configurable ROBEX (Regional OPMET Bulletin Exchange) module

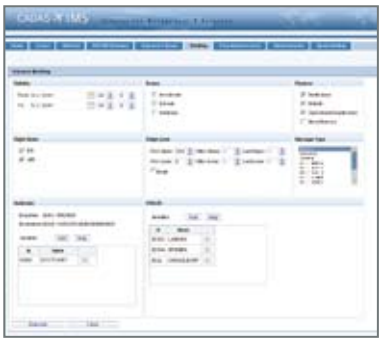
MET Creation

PLUG-IN MODULES

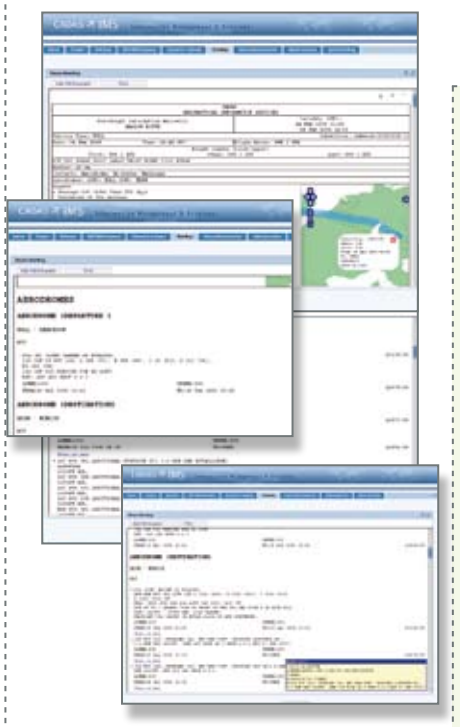
INTEGRATED BRIEFING

- Integrated briefing for AIS and MET
- Conforming to ICAO Doc 8126 and EUROCONTROL
- Briefing types
  - Aerodrome
  - Area
  - En-Route
  - Narrow-Route
- Web Service access for external applications
- Full and update briefing
- Sophisticated and configurable briefing scheduler
- PIB generation directly from FPL (Narrow-Route PIB)
- Pilot home-briefing portal
- Quick briefing function for NOTAM and/or MET
- Smartphone ready

Narrow Route Briefing



En-Route Briefing

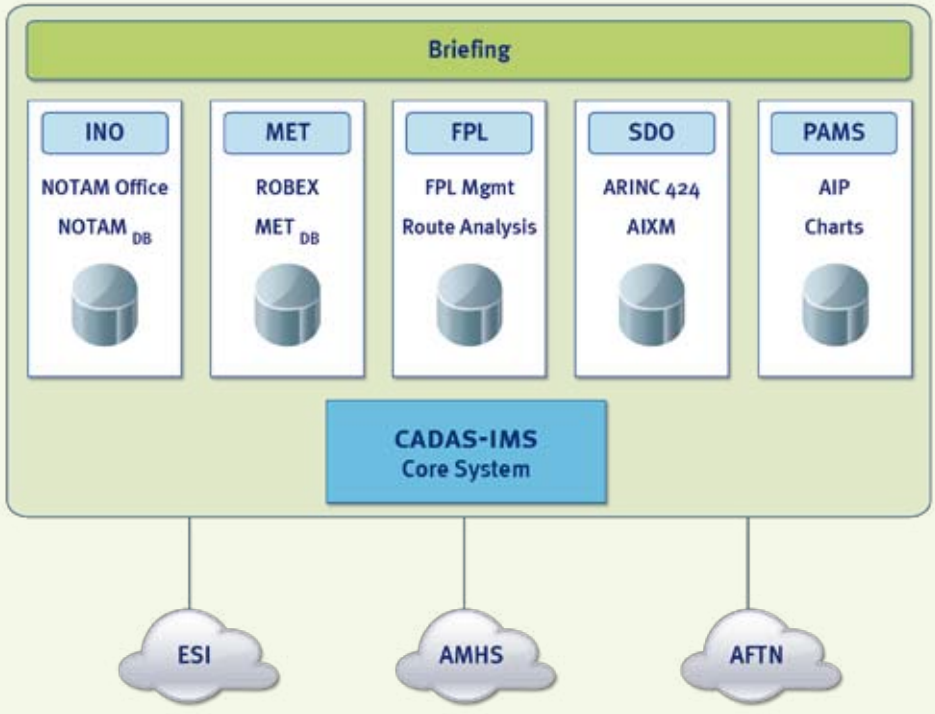


Route Briefing Results

PAMS

- Local PAMS database
- Automatic download and storage of all AIP documents and charts that have been automated from EAD
- Content management (correcting meta data, moving, renaming, attaching, and deleting PAMS documents)
- Retrieval of historic document versions including AIP Amendments, AIP Supplements

WMO Country Briefing



System Overview

FEATURES

STATIC DATA

- Local static database for aerodromes, FIRs, UIRs, ATS routes, navaids, waypoints and aircraft types
- Visualization of all static data through maps
- Data sources including ARINC424 files, AIXM 4.5 or 5 documents (import from file system or EAD link)
- AIXM 5 database CADAS-AIM$_{DB}$
- Open standards interfaces (Web Services, WFS, WMS) for external access

BASIC DATA

Local basic database for:

- NOF
- NOTAM Code Constraint
- WMO Regions
- Definiton of Quick Briefing Route
- Definiton of Quick Briefing Area
- Distribution Lists

SECURITY

- Configurable events on every significant incidence
- Acoustic and/or visual alarm, distribution of diagnostic messages and more
- Database stores all events for configurable amount of time
- Highly configurable user profiles for e.g. access to functions and to the content of the operation queue
- Single Log-In is enforced
- Configurable password policies

SIGWX Charts

ESI Functionality

TECHNOLOGY

- Client/server architecture
- Consists of COTS and OTS components
- Redundancy ensures system availability and data security
- Terminals are linked to the server via TCP/IP-based LANs, WANs or the Internet
- Countrywide distributed configuration with database replication

FURTHER HIGHLIGHTS

- Secure web access through DMZ
- Digital NOTAMs (xNOTAM) support
- Static Data Procedures (SDP) implementation according to EUROCONTROL specification
- Documentation service for storing, loading and automatically ingesting of all kind of current data e.g. countrywide NOTAMs, MET, charts, PAMS documents
- Disaster recovery
- System Status Display always shows UTC system time, queue sizes, and EAD, AFTN and external systems connection

CADAS-IMS is the best choice for a modern and safe AIS system. The coming age of AIM is easily manageable with adding COMSOFT´s sophisticated CADAS-AIM$_{DB}$ to the perfect suitable and modular AIS system and turn it into a next generation AIM solution.

Smartphone Ready

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