



ASECNA AIS DATABASE

System description

Implementation status

Regional cooperation for AFICAD

ASECNA CENTRALIZED DATABASE (1)



- **Main challenges**

- Implementation of a **centralized** aeronautical **database** able to ensure the *reliability, the integrity and the availability of timely data*;
- **Compatibility and easy exchange of data** with other databases and **contribution to AFI-CAD implementation** ;
- **Coherent automation** of the main functions for the production of the different elements of the integrated aeronautical information package ; and
- Make effective **interoperability of meteorological** products with AIM and the flight.



ASECNA CENTRALIZED DATA BASE (2)

ASECNA DATA BASE SYSTEM

Description:

- Full AIM solution including : AIXM+ DATABASE / eAIP / CHARTING / NOTAM/FPL management
- IP network and AFTN .

Specificities:

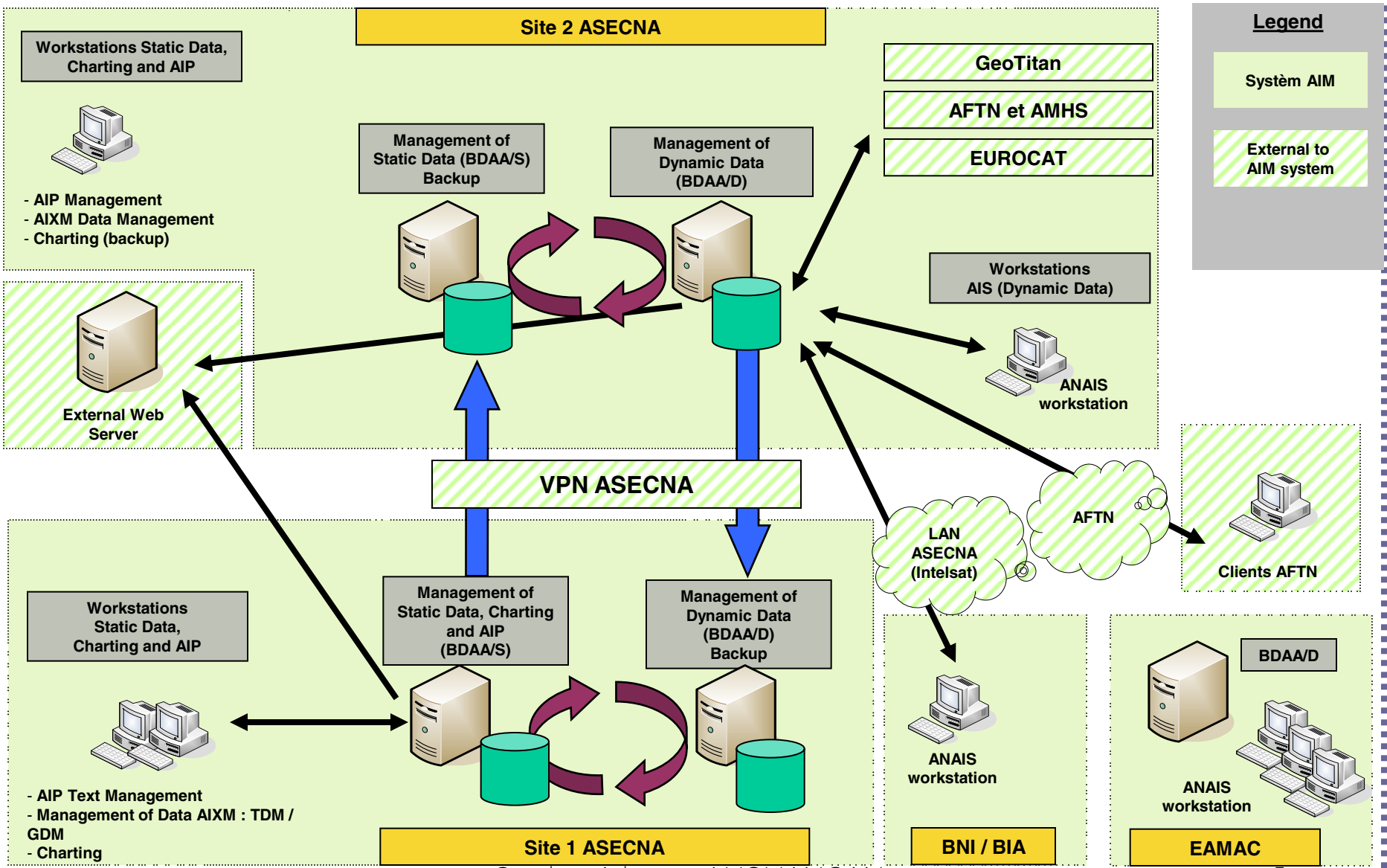
- **Distributed Architecture on multiple sites**
 - 2 Servers for static data base (acting and back up) ;
 - 2 servers for dynamic data base (acting and back up);
 - Real time replication mechanisms;
 - AIXM DATABASE working stations;
 - AIS working stations (linked with dynamic database) in 17 countries for AIS aerodrome units (33) and NOTAM Offices (3 NOF);
 - 1 training server at EAMAC in Niamey (ASECNA training center);
- **Interoperability of AIXM data-base with IAC design application « GEOTITAN » for IAC charts production;**
- **Edition of national AIP for the 17 members states;**
- AIP Display on web server;
- Dynamic data base is compliant with New FPL 2012 format.



AUTOMATION OF AIM ACTIVITIES

- AIP activities: AIP Amendment and eAIP production (AIXM+ THALES Software);
- Charting activities: chart elaboration and production with an GIS application (ARCGIS);
- NOF activities: NOTAM validation and publication, NOTAM check list edition(ANAIS THALES Software);
- AIS/ARO activities: NOTAM proposal edition, PIB edition, FPL and ATS messages validation and transmission (ANAIS THALES Software).

AIM ASECNA Architecture



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COMPLIANCE WITH ROADMAP STEPS AND ASBU METHODOLOGY



- ASECNA Centralized Data Base gives satisfaction to four steps of AIS AIM road map:
- - **P07** : Unique identifier;
- - **P08** : Aeronautical Information Conceptual Model;
- - **P06** : Integrated Aeronautical Information Data base;
- - **P11**: Electronic AIP.

IMPLEMENTATION STATUS (1)

- 1) **Static data base** : database is implemented in 2013, data cross check and data migration are in progress; full migration is expected in june 2015 for data concerning ASECNA 17 members countries.
- 2) **Automation of AIP AMDT** : on going since AMDT n°09/14.
- 3) **Electronic AIP bulding** : framework is implemented, HTML pages are progressively producted since AMDT n°09/14, HTML AIP availability is expected in 2015 for ASECNA 17 countries.

IMPLEMENTATION STATUS (2)

4) **Dynamic data base** : servers and software are implemented, client terminals are installed in 3 NOF (Dakar, Brazzaville, Antananarivo) and 3 AIS units at the same location. Tests are be done and are positive (NOTAM, PIB, FPL).

IP network extention and quality improvement are in progress in order to secure and fludify data exchange between servers and users terminal.

Aerodrome AIS terminal implementation is expected for april 2015 (30 aerodromes). System will be in full operation in june 2015.



- Regional cooperation for AFICAD implementation

ASECNA Database should be, in the framework of AFI-CAD implementation, used as a regional data base for other African states which would desire. Modalities of operation should be defined by common agreement with all stakeholders under ICAO technical assistance.

Associated countries will be entirely responsible of their data and have to ensure data reliability and ASECNA system has to ensure data integrity.

Two ways are possible for cooperation: client system and software between associated country and ASECNA or system to system connection.



THANK YOU FOR YOUR ATTENTION