



# European Directory Service (EDS)

Florian Schmid, Product Manager IT Infrastructure Solutions

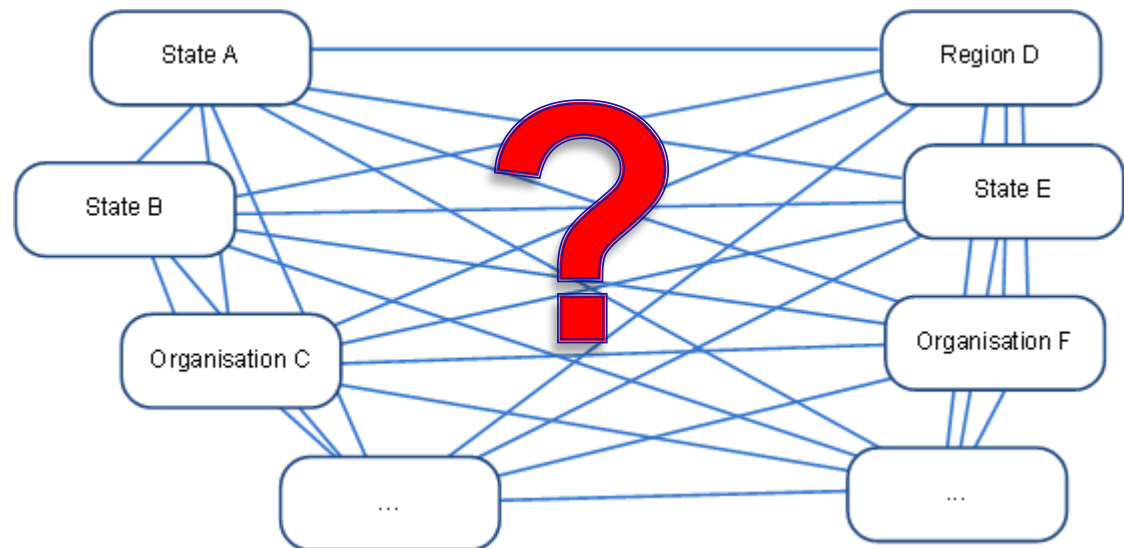
## European Directory Service (EDS)

a Follow-up

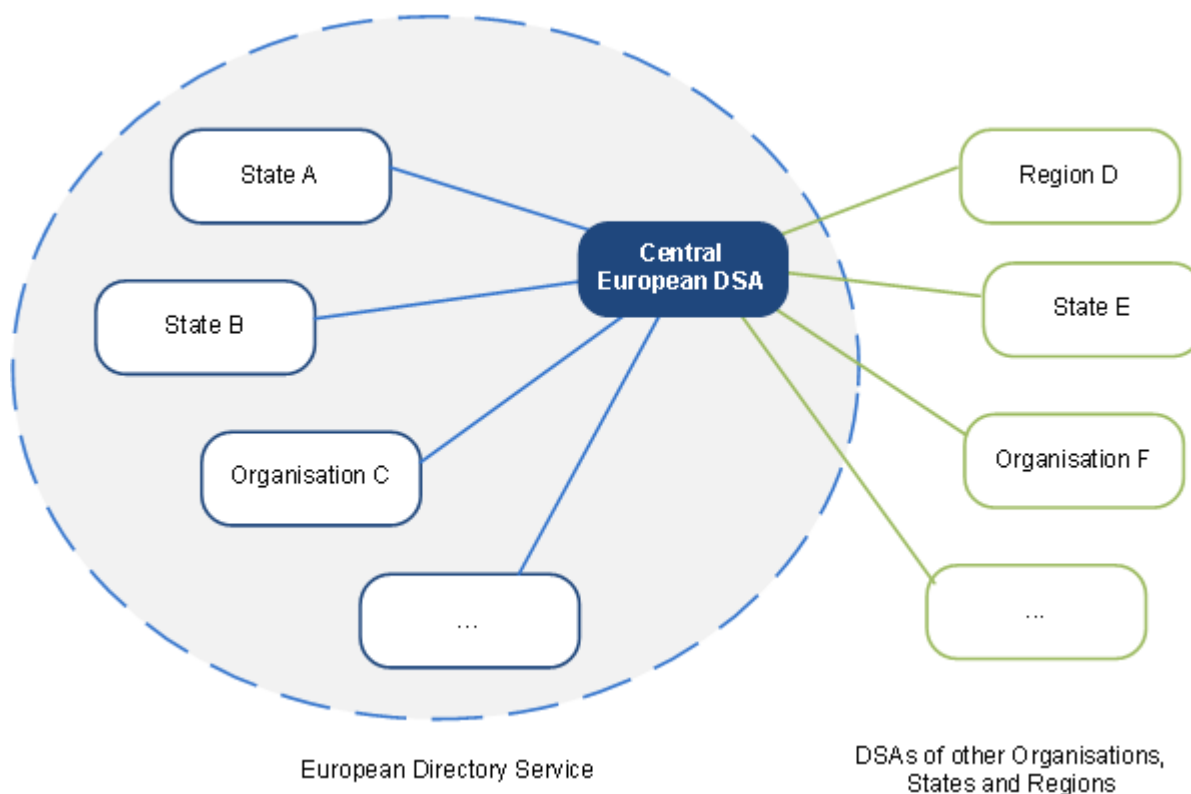
**COMSOFT**  
is making the link

# ATN Directory – Status Quo

- ICAO Doc 9880
  - Flat structure
  - Any-to-any communication
- Coordination ?
- Manageability ?
- Maintainability ?
- Expandability ?
- Content ?



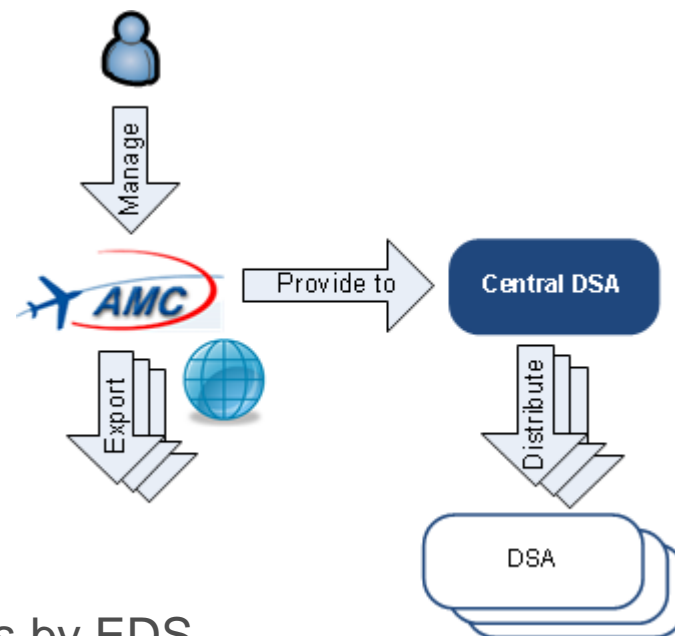
# EDS – Concept



- Hierarchical structure
- Centralised organisation
- Reduced complexity
- Compatible to ATN Directory

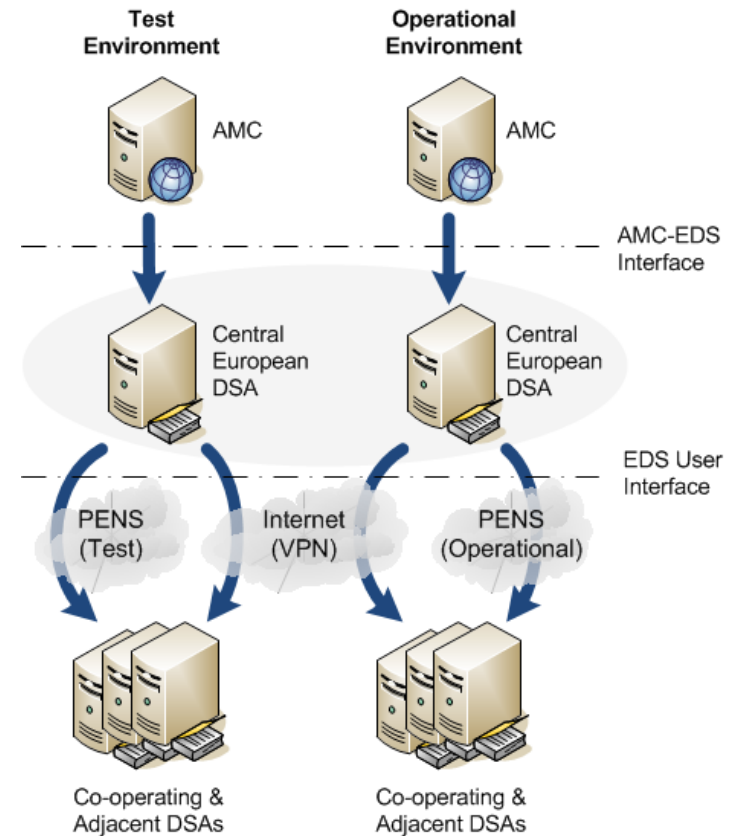
# EDS – Integration and Synchronisation I

- ATS Messaging Management Centre (AMC)
  - Management of AMHS address information on global basis
  - Manual Export by individual download (pull)
- European Directory Service
  - Procedures aligned to AMC
  - Information provided by AMC
  - Automated distribution (push)
- Coexistence of AMC and EDS
  - Synchronised overall solution
  - Support of legacy systems by AMC
  - Support of Directory-aware systems by EDS



# EDS – Integration and Infrastructure

- ICDs available for EDS User Interface
- Two independent AMC systems
  - Test
  - Ops
- Two independent EDS systems
  - Test
  - Ops
- Dedicated distribution networks
  - PENS Test
  - PENS Ops
  - VPN



# EDS – Examples I

**CADIR** COMSOFT ATN Directory Server

Entry Details | Tree Browse | Search | **Cache** | Welcome: [Central Administrator](#) | [Logout](#) | Quick Search:  Search

European-Directory | OPERATIONAL | Eurocontrol

## LFPY

DN o=LFPY,o=Eurocontrol,ou=OPERATIONAL,o=European-Directory

ATN-FACILITY-NAME CFMUB

MODIFYTIMESTAMP 2012-10-10 14:20:32.023+0000

- European-Directory
  - Admin
  - BACKGROUND
  - OPERATIONAL
    - Eurocontrol
      - EBBD
      - EUCB
      - EUCH
      - LFPY
  - EUROPE
    - Europe - Ead (Copied Traffic)
  - ICAO-MD-Registry
    - United Nations Interim Administration Mission In Kosovo (Unmik)
  - AE
  - AF
  - AG
  - AI
  - AL
  - AM
  - AN
  - AO
  - AR
  - AS
  - AT
  - AU
  - AW
  - AZ
  - BA
  - BB
  - BD
  - BE
  - BF

**CADIR** COMSOFT ATN Directory Server

Entry Details | Tree Browse | Search | **Cache** | Welcome: [Central Administrator](#) | [Logout](#) | Quick Search:  Search

European-Directory

## Modify details for New Person

Save

Extra Properties: atn-amhs-user, atn-certification-authority

Modify

\* surname: Test

\* commonName: Test User

description:

telephoneNumber:

atn-AF-address:

\* atn-amhs-direct-access:  absent  false  true

+atn-der-certificate:  Browse...

\* atn-ipm-heading-extensions:  absent  false  true

\* mhs-or-addresses: /CN=EDDXXXXX/OU=EDDD/O=EDDD/P=GERMANY/A=ICAO/C=XX

+atn-per-certificate:  Browse...

# EDS – Examples II



## European Directory Service Central European DSA



Entry Details
Tree Browse
Search

Welcome: [Central Administrator](#) [Logout](#)

Quick Search:  Search

Add
Delete
Modify
Global Changes

European-Directory | 
 Operational | 
 AT | 
 LOOO |

## LOOOFYX

DN	cn=LOOOFYX,o=LOOO,c=AT,ou=Operational,o=European-Directory
OBJECTCLASS	top;organizationalRole;atn-organizational-role;atn-amhs-user
COMMONNAME	LOOOFYX
MODIFYTIMESTAMP	2013-04-11 12:39:20.174+0000
MHS-OR-ADDRESSES	/CN=LOOOFYX/OU=LOOO/O=LOVV/PRMD=AUSTRIA/ADMD=ICAO/C=XX/
ATN-AF-ADDRESS	LOOOFYX
ATN-AMHS-DIRECT-ACCESS	true
ATN-IPM-HEADING-EXTENSIONS	false
MHS-EXCLUSIVELY-ACCEPTABLE-EITS	2.6.3.4.2;1.0.10021.7.1.0.1;1.0.10021.7.1.0.2;1.0.10021.7.1.0.6;1.0.10021.7.1.0.100;2.6.1.12.0
MHS-MAXIMUM-CONTENT-LENGTH	2097152

powered by 

## EDS – Status

- AFSG/16 approved CP-AMHSM-12-002 to the Operational Concept of the European Directory Service (EDS) to the EUR AMHS Manual
- AFSG/17 approved the introduction of Appendix G “European Directory Service (EDS)” into the EUR AMHS Manual
- EUR AMHS Manual, Appendix G v1.0 – 08.03.13  
[http://www.paris.icao.int/documents\\_open/show\\_file.php?id=585](http://www.paris.icao.int/documents_open/show_file.php?id=585)
- Eurocontrol is currently working on validation and implementation of EDS at Eurocontrol:
  - EDS Site Acceptance Tests (SAT) performed at EUROCONTROL on 10-12 April 2013
  - EDS User Training has been held in EUROCONTROL IANS on 9, 10 July 2013
  - Validation of EDS, Step 1 will start in September 2013 for the duration of 8 months

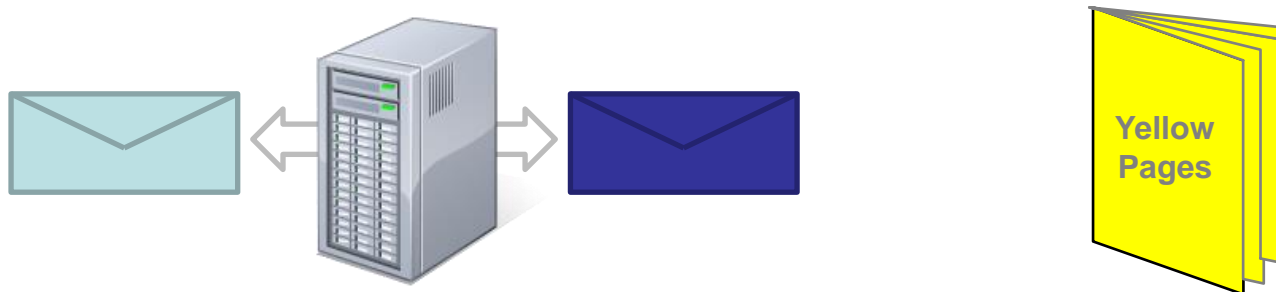


# EUR AMHS Manual, Appendix G v1.0 – 08.03.13

- Topology of EDS
- Functional Objects and Relationship to ICAO Doc. 9880 Part IV
- Protocols
- Concept
  - User Roles in EDS
  - Flow of Data
  - Shared Data (like Statistics, User Capabilities)
  - Managed Data (like AMC)
  - Procedures (AIRAC alike)
- Directory Schema
- Transition, especially in regards to AMC
- Future Options
  - Context Management (CM) applications
  - Public Key Infrastructure (PKI)
  - Tailored authentication and authorisation needs of SWIM

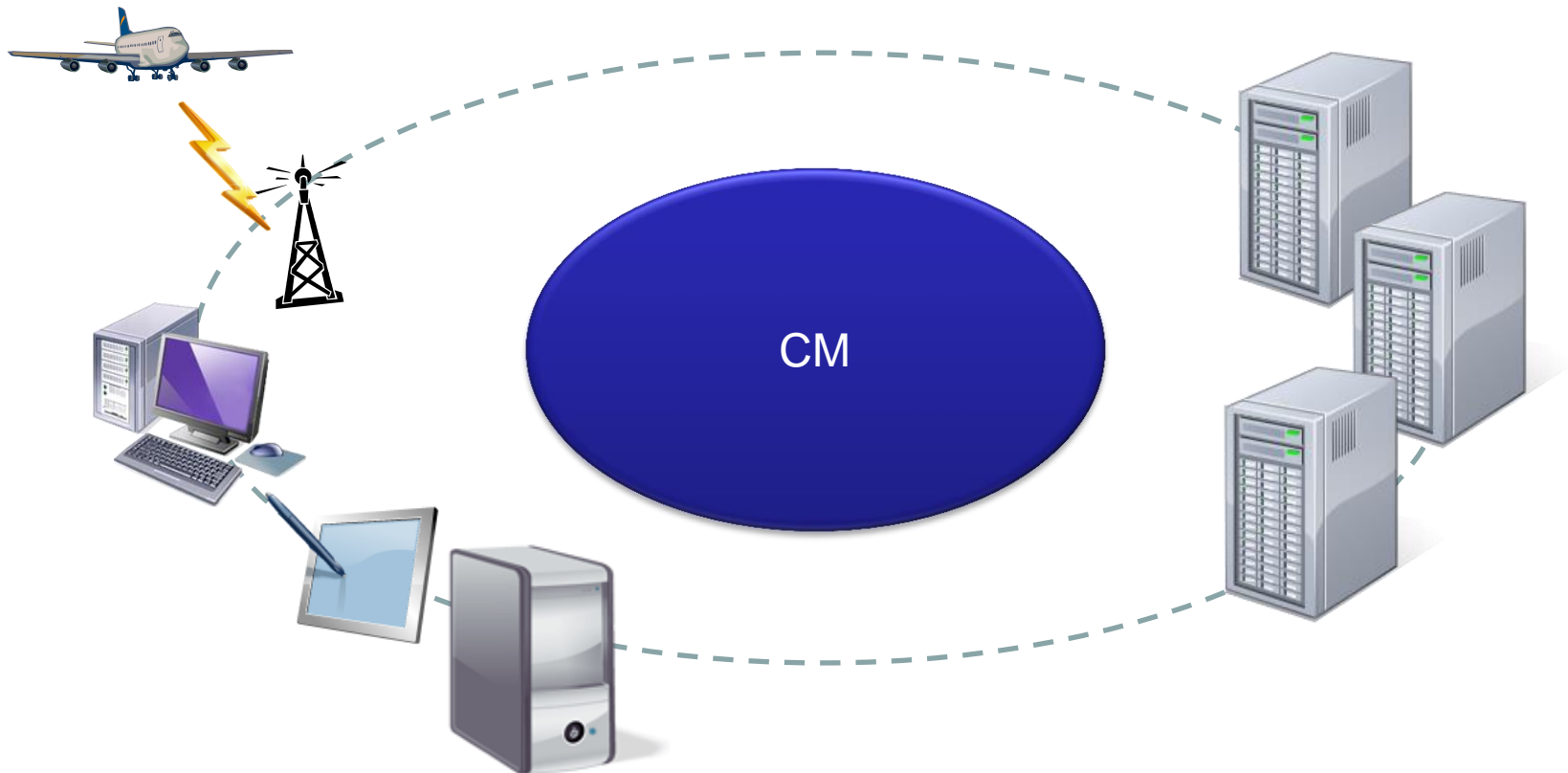
# Directory – Use Cases I

- Messaging
  - Distribute, update and synchronise address translation data between AFTN & AMHS
  - Manage distribution lists
  - Yellow Pages for ATN Users
  - Publish user attributes capabilities (maximum message length, acceptable EITS etc.)



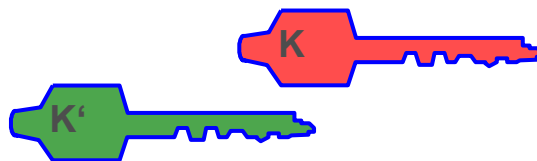
## Directory – Use Cases II

- Context Management (CM) applications
  - Supporting User-Applications communicating over the ATN



## Directory – Use Cases III

- Security
  - Extended Services in ATS Messaging
  - Distribute PKI Information
  - Support X.509 Digital Signatures and CRLs
  - AMHS/AFTN Gateways and User Agents
  - Matches ATN Needs and supports other Applications as well (e.g. Secure Communication Channels, User Authentication)



# Contact Persons

- EDS implementation activities
  - Hosted by Eurocontrol
  - Contracted to COMSOFT GmbH
  
- Contact COMSOFT
  - Florian Schmid
  - Product Manager IT Infrastructure Solutions
  - [florian.schmid@comsoft.aero](mailto:florian.schmid@comsoft.aero)
  
- Contact Eurocontrol
  - Yuksel Eyuboglu
  - Project Manager
  - [yuksel.eyuboglu@eurocontrol.int](mailto:yuksel.eyuboglu@eurocontrol.int)