## PENS PAN EUROPEAN NETWORK SERVICES An overview



November 2013 - v1.5

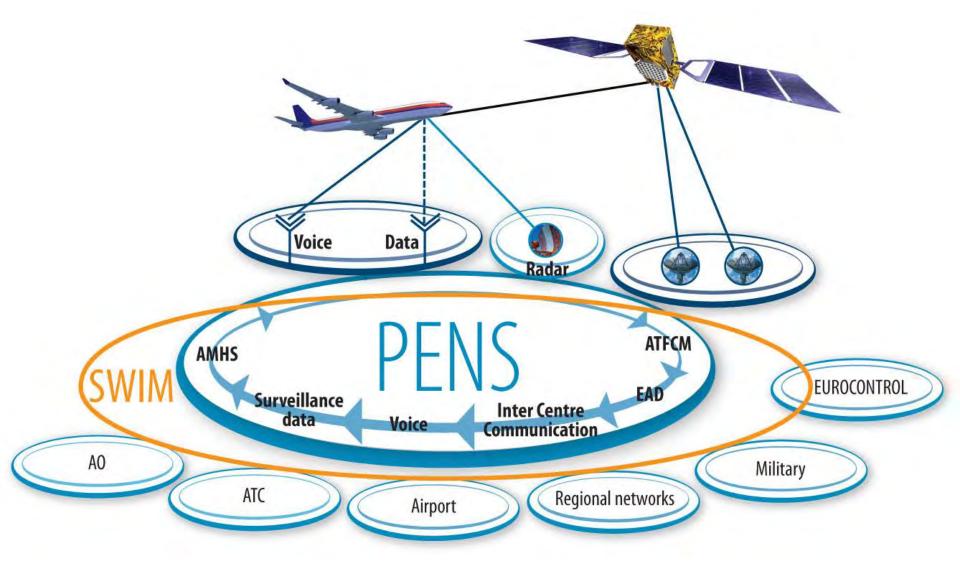
- Why PENS
- What is PENS
- PENS Governance
- PENS Management Unit
- Conclusion



## Why PENS

- Current data communications in the air traffic management industry heavily rely on X.25, a technology that is about to be phased out (OLDI, ASTERIX, AFTN/CIDIN ...)
- Most inter- ANSP links are bilateral point to point circuits, managed on a bilateral basis
- CFMU and EAD have separate networks with different providers
- Future air traffic management will require tighter collaboration between all stakeholders
- Supporting seamless operations and interoperability
- Business case demonstrated that overall costs could be reduced by 15%.
- The technical enabler for this is a common shared network: PENS

# PENS: the future of European aeronautical communications infrastructure



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#### What is **PENS**

- A joint EUROCONTROL / ANSP led initiative to
  - provide a common <u>IP based</u> managed network service across the European region
  - Provide a efficient support to operational <u>data and</u> <u>potentially voice</u> communications:
    - existing services
    - <u>new requirements</u> that are emerging from future Air Traffic Management (<u>ATM</u>) concepts (incl SESAR).
    - In line with the SES-2 regulation (FMTP IR)

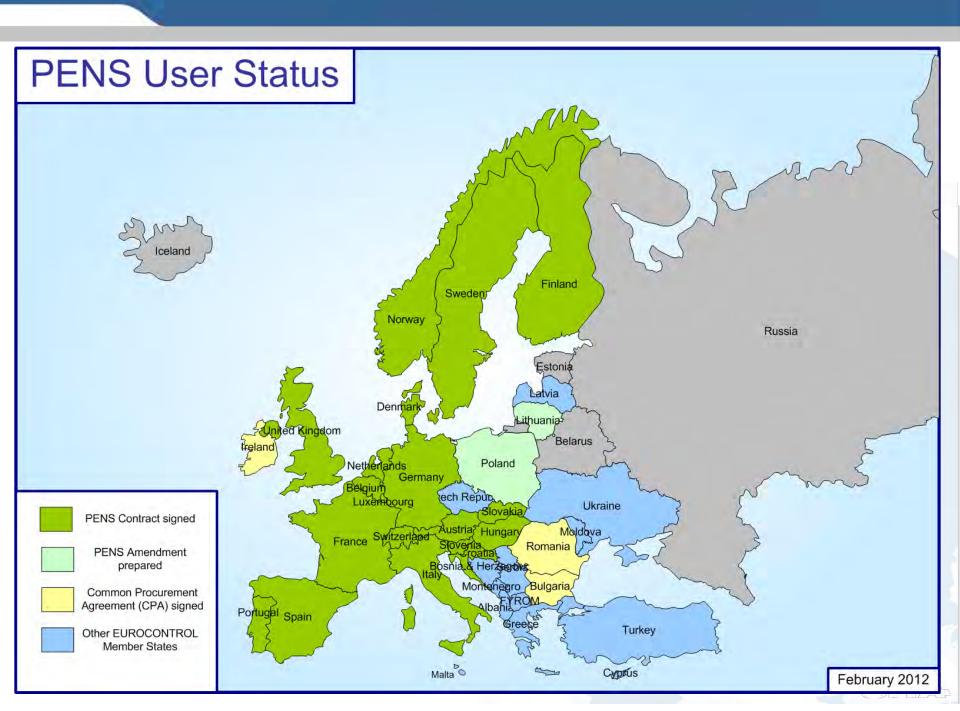
#### **PENS Service Layers**



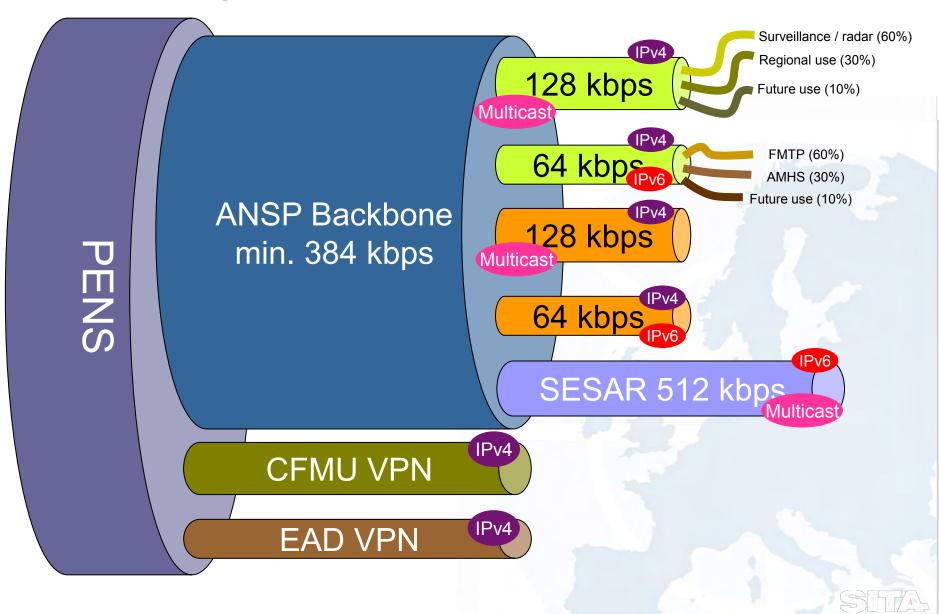
Shared sites:

• PENS Users sharing the infrastructure

• cost optimization, alignment on highest service level



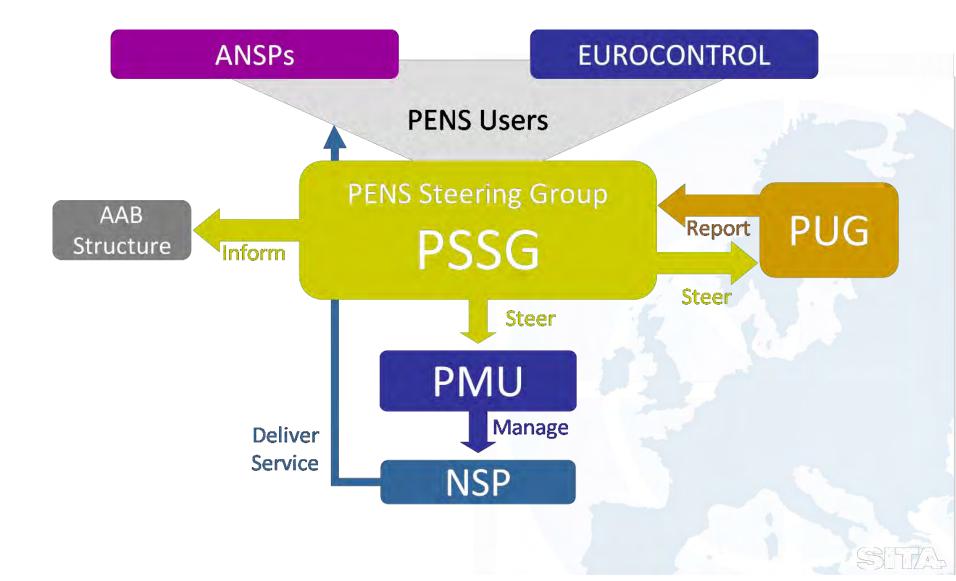
#### **PENS Design Overview**



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#### **PENS** Governance

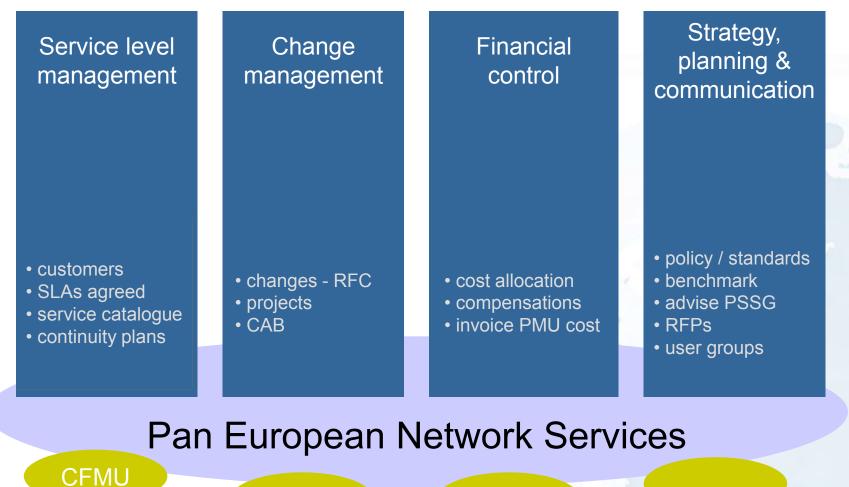


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#### PMU mission statement

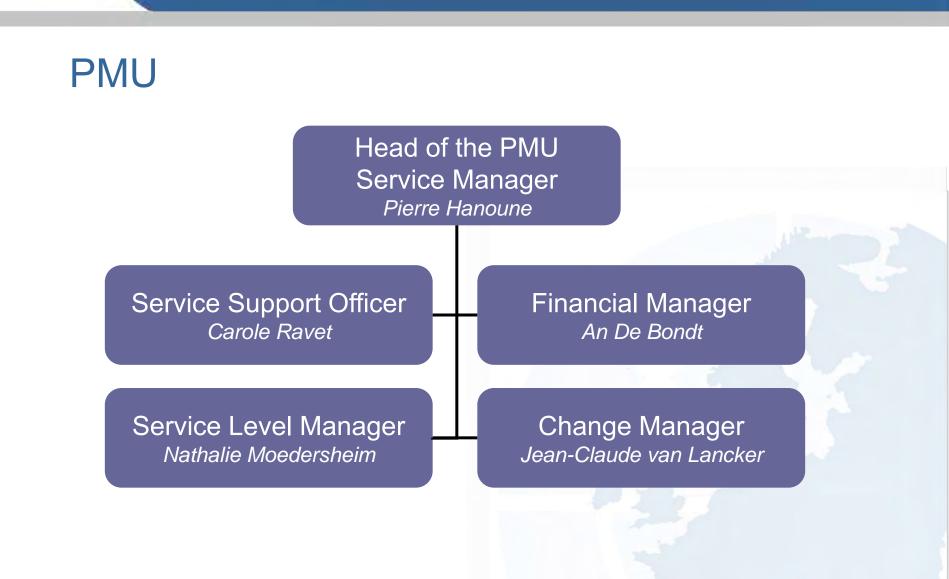
"Under the guidance of PSSG (PEN Services Steering Group), the PENS Management Unit shall carry out the day to day management of the PENS, including planning, monitoring the service and liaising with the NSP (SITA) and the PENS users (CFMU, EAD, ANSPs ...)"

#### **PMU Roles & Responsibilities**



EAD

ANSPs



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#### The joint PENS team ANSPs, SITA & EUROCONTROL



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