

VITACY

As Europe modernizes its Air Traffic Management (ATM) system to create a more efficient, flexible and resilience "Digital European Sky", the VITACY project is playing a key role in this transformation. One of the main goals of the project is to update the traditional ATM infrastructure by the development of **new service-oriented architecture** including the definition of new standardised services. In this project a new type of virtual centre architecture -**Triangle Architecture**- will be implemented.

This type of architecture breaks down the services of a single ATM Data Service Provider (ADSP) into smaller, specialised services (S-ADSP). This way, air traffic services can pick the optimal provider for specific tasks, without needing to invest in additional hardware. This architecture allows also different S-ADSPs to work together in a more coordinated and flexible way, following the European ATM Master Plan.

In this project the following S-ADSPs will be modified with Triangle Architecture by defining and developing new standard virtual centre services:

- **AMAN** (Arrival management)
- **D-MAN** (Departure Management)
- **TBS** (Time Based Separation)
- **CD/R** (Conflict Detection and Resolution)

Additionally, with this innovative concept the project will implement **cyber-resilience tools**, ensuring that air traffic control systems remain safe from cyber threats. In this way, VITACY will help to make the system more secure.

In short, **VITACY is changing how ATM Data Services are provided.**



TRANSFORMING AIR TRAFFIC MANAGEMENT WITH THE TRIANGLE ARCHITECTURE

 VITACY SESAR Project

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BENEFITS OF USING VIRTUAL CENTRE FOR WHOLE SOCIETY

- Increased flexibility
- Increased cost-efficiency with the rationalisation and standardisation of systems and services
- Harmonised ATM functionalities and seamless cross-border transitions for airspace users
- Increased agility and cost-efficiency to implement and commission new ATM functionalities
- Increased capability for contingency planning

VITACY SOLUTIONS

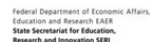
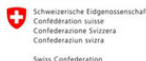
- Solution 1 - Triangle Architecture: The Future of Arrival Management
- Solution 2 - Triangle Architecture: Time-Based Separation ADSP
- Solution 3 - Triangle Architecture: Conflict Detection and Resolution ADSP
- Solution 4 - Digital Trust in virtual centre communications
- Solution 5 - ADSP mediation module
- Solution 6- Cyber-resilience console
- Solution 7 - Triangle Architecture: Departure Management ADSP



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