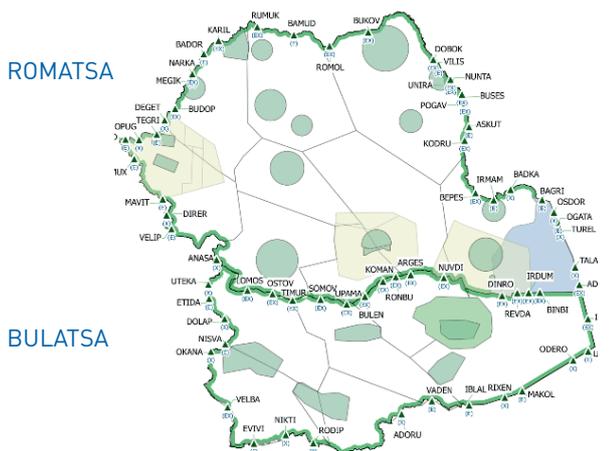


# DANUBE FAB prepares for cross-border communications with a solid foundation for virtual centre capabilities

DANUBE FAB – End-to-end IP system for Bulgarian and Romanian airspace



DANUBE FAB is the functional airspace block formed between the Republic of Bulgaria and Romania, including the Bulgarian Air Traffic Services Authority (BULATSA) and the Romanian Air Traffic Services Administration (ROMATSA), as the air navigation service providers. DANUBE FAB is a key element of the Single European Sky (SES) legislative framework, which prescribes a range of measures to ensure sufficient capacity for servicing flights over Europe.

Delivering on the requirements of the SES will need a closer collaboration than ever between Air Navigation Service Providers (ANSPs) across Europe. To improve connectivity between ANSPs in Republic of Bulgaria and Romania, DANUBE FAB replaced the legacy voice communication systems (VCS) in use at BULATSA and ROMATSA with two separate deployments of VCS3020X from Frequentis.

The world's first VCS to support dynamic sectorisation, VCS3020X will help BULATSA and ROMATSA to move towards the cross-border communications model laid out by the SES ATM Research (SESAR) project. Enabling virtual air traffic control centre capabilities will make it easier than ever for BULATSA and ROMATSA to distribute workloads across their control centres—enhancing safety, efficiency and business continuity.

**Air Traffic Management**

## Client profile

A functional airspace block between the Republic of Bulgaria and Romania, DANUBE FAB aims to help decrease delays, improve the safety and cost-efficiency of air navigation services, and reduce aviation's impact on the environment. [www.danubefab.eu](http://www.danubefab.eu)

## Business situation

With many millions of air passengers flying across Europe each year, ANSPs in neighbouring states must work together closely to handle the traffic safely and efficiently.

## Solution

DANUBE FAB engaged aviation industry experts from Frequentis to replace legacy communication systems at ANSPs in both countries with next-generation VCS3020X solutions. A resilient, high-performance voice over IP (VoIP) platform, VCS3020X will enable BULATSA and ROMATSA to enhance the connectivity between their VCS networks with dynamic delay compensation for IP networks and echo-free voice experience for controllers.

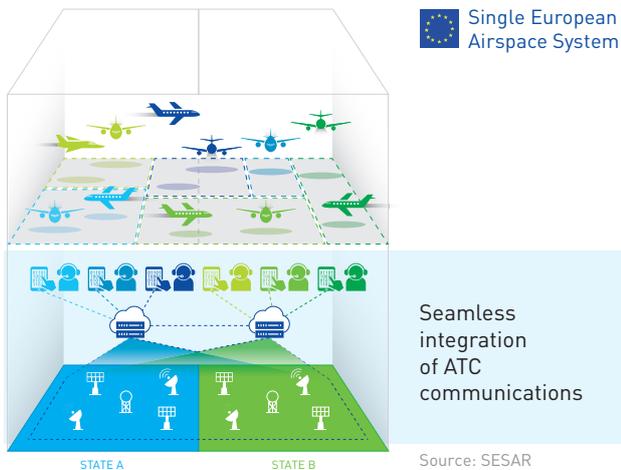
## Impact

- Delivers intuitive, context-sensitive layout, helping to minimise the risk of operator error
- Enhances service continuity by allowing rapid transfer of ATC capabilities in the event of a disaster scenario at one ANSP
- Lays the foundation for greater collaboration between BULATSA and ROMATSA, as mandated by the SES framework

“DANUBE FAB ANSPs fully recognise the benefits from the common procurement of a Frequentis VCS3020X solution, in terms of technological innovation and economy of scale. We at BULATSA and ROMATSA have set a good example for future projects' implementation.”

Vladimir Gotchev, Deputy Director General Technical, BULATSA

# Keeping air travel safe



To accommodate the forecast long-term growth in air traffic safely, sustainably and cost-effectively, the European Commission launched the Single European Sky—a legislative framework to promote the modernisation of European airspace and air traffic management technologies.

In the past, ANSPs in Republic of Bulgaria and Romania relied on legacy voice communication systems (VCS) to deliver air traffic services within their borders. To increase the collaboration between controllers in each region, DANUBE FAB (a functional airspace block formed between Republic of Bulgaria and Romania) aims to allow multiple ANSPs to share the same data and radio communication equipment in a safe and reliable manner. To help it to achieve these goals, DANUBE FAB needed a trusted and market leading VCS platform. The organisation specified that the new solution should support the latest voice over IP (VoIP) technology, while also maintaining support for legacy communications platforms. Crucially, DANUBE FAB targeted a platform that would enable controllers at different locations in each country to work together using the same source of real-time ATM data.

## Selecting a world-leading solution

DANUBE FAB selected VCS3020X from Frequentis as its new VCS platform. A VoIP solution, VCS3020X enables tight interoperability between multiple ANSPs, including the ability to share workloads,

network resources and even management responsibilities. Fully compatible with all relevant ICAO, EUROCONTROL and EUROCAE specifications, the Frequentis solution includes workflows that guarantee seamless handovers of airspace between controllers.

At the time of the RFP, Frequentis was the only technology provider in the world that could deliver on the full range of technical requirements that DANUBE FAB had specified. Frequentis also came to the project with a proven track-record of similar VCS deployments elsewhere in Europe, which gave DANUBE FAB the confidence that Frequentis had both the technology and implementation expertise to ensure a smooth and successful project.

## Moving forward as one

Working together with DANUBE FAB, Frequentis deployed VCS3020X at area control centres in Bucharest, Romania and Sofia, Republic of Bulgaria and in airport centres in Burgas and Varna, Republic of Bulgaria. Today, the solutions support 200 positions in Republic of Bulgaria and 149 controller working positions in Romania, providing controllers with 270 radio channels and 112 telephone lines.

With next-generation VCS solutions deployed in both countries, DANUBE FAB is in a strong position to enhance the connectivity between its communications networks in Romania and Bulgaria. BULATSA and ROMATSA will ultimately be able to boost the efficiency of ATM during peak periods, strengthen resiliency in the event of a disaster scenario, and move closer to achieving the virtual air traffic control centre capabilities mandated by the Single European Sky.

**“The new VCS platform allows greater flexibility in the use of communication resources for dynamic allocation of airspace within DANUBE FAB”**

Valentin Cimpuiaru, Director General, ROMATSA

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