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FREQUENTIS X10 VCS prepares Norway for location-independent airspace operations

- Norwegian Air Navigation Service Provider, Avinor, to future-proof operations with Frequentis' geographically redundant voice communication system (VCS)
- Multi-redundant, network-centric VCS supports dynamic sectorisation and operational flexibility
- Frequentis X10 VCS provides a market-leading approach to cyber safety and the most intuitive Human Machine Interface (HMI) for the air traffic controllers

Avinor has selected Frequentis to provide its multi-redundant X10 VCS for the control centres in Royken, Stavanger and optionally Bodo. With Frequentis X10, Avinor can now separate the control room and the VCS data centres to create true location independence for air traffic management (ATM) operations.

The contracted solution will provide a network-centric architecture with a unique multi-redundancy design. It enables dynamic sectorisation, supporting the principle of any controller, any sector, any position, and any location at any time, which provides the flexibility to adapt to any operational scenario.

"We find the architecture of the solution and the possibilities relating to virtualisation to be modern and future-oriented, contributing to ensuring an easier, safer, and more cost-efficient system management. The software lifecycle process and vulnerability management are giving confidence in the robustness of the solution," stated Ellen Lystad, Director ANS Technology Development at Avinor.

Frequentis X10 is a fully software-based and ATM-grade IT VCS, suited for both virtualised and conventional airspace. It provides the resilience and cyber security required of a system built for safety-critical ATM, with multilevel redundancy, as well as the ability to adapt capacity depending on demand. Frequentis X10 VCS adds value to every air traffic control (ATC) operation, making it particularly strong from the air traffic controllers' perspective. Loading of roles and the handling of scenarios are easy and intuitive, without any disruption to service provision. The advanced user functions ensure any clutter on the operator panel is eliminated.

"The X10 is our next generation VCS system, designed with operational agility and a future-proof update strategy that will ensure business continuity throughout ATM operations," says Hannu Juurakko, Frequentis Executive Vice President ATM Civil and Chairman of the ATM Executive Board. "We are



pleased to have a strong working relationship with Avinor able to support them with the changing demands of their airspace including efficient airspace management achieved through enhanced contingency operation via multilevel redundancy."

Frequentis and Avinor have worked on numerous projects together since 2012 including, most recently, providing an uncrewed traffic management (UTM) system to support Norway in its drone strategy. In 2021 Frequentis also provided Avinor with its VCS for multiple tower renewals as well as a major oil field in the North Sea.



Avinor CTO, Lars Vågsdal. with Frequentis Executive VP ATM Civil, Hannu Juurakko

About FREQUENTIS

Frequentis is a global supplier of communication and information systems for control centres with safety-critical tasks. The listed family company develops and markets its "control centre solutions" in the Air Traffic Management segment (civil and military air traffic control, air defence) and the Public Safety & Transport segment (police, fire brigades, emergency rescue services, railways, coastguards, port authorities). With a market share of 30%, Frequentis is the world market leader in voice communication systems for air traffic control. Frequentis is also the global leader in aeronautical information management and aeronautical message handling systems.

As a global player with around 2,100 employees (full-time equivalents/FTE), Frequentis has a global network of companies and representatives in more than 50 countries. Its head office is in Vienna, Austria. Frequentis' products, services, and solutions are used at more than 45,000 operator working positions in around 150 countries. Shares in Frequentis are traded on the Vienna and Frankfurt stock exchanges; ISIN: ATFREQUENT09, WKN: A2PHG5. In 2022, revenues were EUR 386,0 million and EBIT was EUR 25.0 million.

Wherever Frequentis' systems are used, safety-critical operators bear responsibility for the safety of other people and goods. The company also works towards a more sustainable future through its air traffic optimisation solutions.

For more information, please visit www.frequentis.com

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