



# smartVTS

## Transforming vessel traffic management

Modular design

Easy integration

Immediate insight

Maritime

**FREQUENTIS**  
FOR A SAFER WORLD

# Building next-generation VTS control centres

A vessel traffic service (VTS) is designed to help with navigational and managerial decision-making processes for maritime traffic, and is generally provided by a competent shore-based authority. Frequentis smartVTS helps operators collate data from a variety of sources, and then communicate relevant, accurate and usable information to shipmasters and other key stakeholders.

## Challenges for an effective VTS

### Safety and efficiency

Operators need reliable communications and accurate, concise representations of growing data to guide vessels safely.

### Cost

Budgets are limited, so COTS components offering low TCO are a must.

### Flexibility

Legacy VTS systems are often difficult to extend, limiting the ability to interface with other control centres.

### Integration

Providers may not wish to discard significant past investments in equipment.

### Speed of innovation

Providers want to achieve fast implementation to cut time-to-value.

### Future-proof

Systems must be able to accommodate new and emerging communication standards.

VTS providers need to meet the combined objectives of making sea transport safer and more efficient, while minimising the impact of maritime traffic on the environment. As the world's population grows, so does the cargo carried by ships, increasing this pressure.

Operators within the VTS control centre must continually reconcile a dizzying array of data points including sea currents, wind, vessel positions, tides, telephone and radio communications. Unless they do this with sufficient speed, accuracy and reliability, they risk failing to communicate essential information to vessels.

Traditionally, VTS innovations have focused on improving sensor technology, but this only improves the quality of the data delivered to the operator, rather than enhancing their ability to make decisions more timely and accurate.

Frequentis has taken a novel approach, building a state-of-the-art, layered architecture that correlates data and presents information to the operator in a smarter way, empowering them to work more efficiently and effectively. By presenting operators with exactly the information they need for sound decision-making, smartVTS is the answer to the challenges of a next-generation VTS.

# smartVTS: Enabling true situational awareness

smartVTS users benefit from a unique multi-layered architecture, with segments for sensors, data transmission, processing, and display and operation.

smartVTS offers an

## Context-based visibility

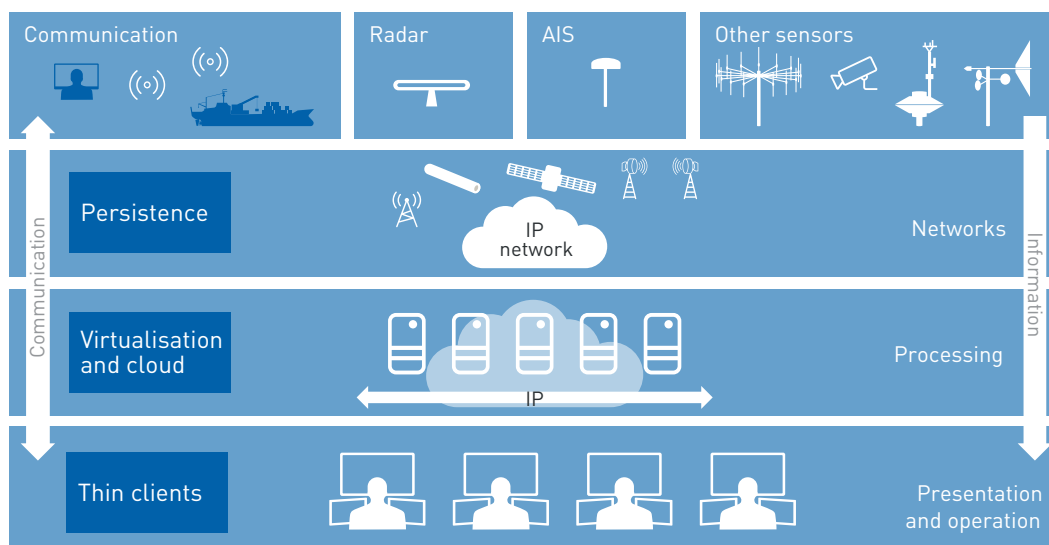
Give operators the tools to excel by processing, combining and displaying the most relevant information. By providing an optimised operational view to operators, a common situational required to communicate effectively with vessels.

## Modular design

Take advantage of the modular design of smartVTS to adapt it to changing operational needs, easily integrating additional sensors as required with little impact on system layout. Faults with one module can also easily be isolated before they affect the rest of the environment.

## Innovate but don't discard

Embrace the latest innovations with a forward-looking architecture. At the same time, blend smartVTS seamlessly with existing equipment, ensuring that past investments are fully utilised.



## Designed for affordable flexibility

Typically, VTS systems have employed a rich-client architecture, driving costs up as users are locked into specific hardware, installation, licensing models and operator positions. In contrast, smartVTS is designed for thin clients, and allows any authorised user to access the system from virtually any desktop, tablet or smartphone.

Built on high-quality COTS components and featuring a modular design, smartVTS allows users to choose the right sensor for any use case. The architecture supports application versatility, and Frequentis will help you build a tailored VTS system that fits your specific needs.

# Supporting the right decision, every time

With 70 years' experience in developing control-centre solutions, Frequentis has a solid foundation for providing VTS systems that support operators in performing to their full potential. By going beyond system integration to deliver client-specific, end-to-end solutions with a smart architecture, Frequentis can help you leave pain points behind for VTS control centres that lead the way in effectiveness.

## Help operators excel

smartVTS adapts to user-defined workflows, providing the key data points that help operators guide vessels safely and reduce environmental impact. By handling low-level tasks, the system acts as an expert assistant, freeing operators to focus on higher-value decisions.

## High-quality standards for mission-critical applications

Combining intelligent redundancy with automatic monitoring that doesn't impact performance levels, smartVTS gives operators the tools to deliver consistently exceptional levels of service. Built for challenging environments, it enables reliable communication at all times.

## Maximise efficiency

smartVTS offers state-of-the-art functionality at a low total cost of ownership (TCO). By integrating with existing and future components, it maximises the value of previous and upcoming investments.

## smartVTS use case scenarios

- Ports and harbours
- Coastal surveillance
- Inland waterways
- Security systems
- Offshore: Oil, gas and windfarm
- Ready for the future

**FREQUENTIS**

**FREQUENTIS AG**  
Innovationsstraße 1  
1100 Vienna, Austria  
Tel: +43-1-811 50-0  
[www.frequentis.com](http://www.frequentis.com)

The information contained in this publication is for general information purposes only. The technical specifications and requirements are correct at the time of publication. Frequentis accepts no liability for any error or omission. Typing and printing errors reserved. The information in this publication may not be used without the express written permission of the copyright holder.