

# smartVTS

# Transforming vessel traffic management

Modular design Easy integration Immediate insight



## Building next-generation VTS command centers

Global security and prosperity relies upon a safe maritime transportation system. Vessel traffic services (VTS) provide essential risk mitigation for commercial ports and key waterways, ensuring safe passage for trade. Frequentis smartVTS provides the next generation of VTS capability, collating data from a variety of sources, and providing insights, recommendations, and alerts. SmartVTS equips watchstanders to communicate the most relevant, accurate and usable information to mariners and other key stakeholders.

#### Challenges for an effective VTS

#### Safety and efficiency

As data sources increase, operators need reliable communications and, concise representations of information to guide vessels safely.

#### Cost

Budgets are limited, so COTS components offering low total cost of ownership are a must.

#### Flexibility

Legacy VTS systems are often standalone units, limiting the ability to interface with other comand centers or enable remote work.

#### 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 bear the responsibility of keep the world's busiest waterways safe and efficient. As the world becomes more networked, so to does commercial vessel traffic, increasing the potential for hazards and congestion within the maritime transportation system.

Operators within VTS command centers must continually reconcile a dizzying array of data points including sea currents, wind, vessel positions, tides, telephone and radio communications. Failure to manage this information with sufficient speed, accuracy and reliability risks major mishaps, costly in both lives and property.

Traditionally, VTS innovations have focused on improving sensor technology. Refining sensors improves the quality of the data delivered to the operator, but does not enhancing a watchstander's ability to make timely and accurate decisions.

Frequentis has taken a novel approach, incorporating the latest human factors to build a state-of-the-art, layered architecture that correlates data and presents information to the operator in a smarter way, empowering watchstanders 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 an integrated, operator-focused design, with segments for sensors, data transmission, processing, and user-facing display and operation.

#### smartVTS offers

#### User-focused interface

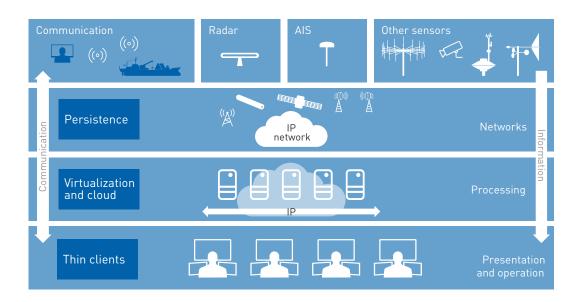
Give operators the tools to perform by processing, combining, and displaying the most relevant information. smartVTS provides insights and alerts based on watchstander processes and incoming data.

#### 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. Modules can be updated independently, without impacting the overall system.

#### 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 utilized.



#### 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 seven decades of experience developing military and public safety command and control solutions, Frequentis has a solid foundation for providing VTS systems that support operators performing to their full potential. By going beyond system integration to deliver client-specific, end-to-end solutions, Frequentis can help you leave VTS pain points behind.

#### Help operators excel

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

## Increase proficiency, decrease training time

Providing operators a system that integrates data feeds and workflows decreases the learning curve for new watchstanders.
Updated systems provide greater job satisfaction, promoting operational excellence and member retention.

#### No sunk costs

smartVTS offers state-of-theart functionality at a low total cost of ownership. By integrating with existing and future components, it maximizes the value of both previous and future investments.

### smartVTS use case scenarios

- ightarrow Ports and harbours
- → Coastal surveillance
- → Inland waterways
- → Security systems
- → Offshore: Oil, gas and windfarm

- → Ready for the future:
  - Tomorrow's data feeds
  - Centralized VTS Centers
  - Management of autonomous shipping

## **FREQUENTIS**

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