

A European coast guard maintains 24/7 operations during a period of significant disruption



With several thousand of kilometres of territorial waters to protect, this European coast guard depends on its coordination centres to monitor radio traffic for persons and vessels in distress, and to help direct search and rescue efforts. When the COVID-19 crisis struck in early 2020, the organisation faced an unprecedented challenge: enable dozens of operators to continue their work remotely while in lockdown in their homes.

In less than two weeks, the coast guard worked with Frequentis to implement a remote working solution based on the Frequentis Maritime product suite: MarTRX. Specially designed for the unique requirements of maritime surveillance, the solution allows operators to connect to a central maritime dispatcher from home using commercial-off-the-shelf laptops and audio equipment and consumer-grade broadband connections.

“The challenging events of 2020 have highlighted the importance of resilience and operational agility for maritime safety agencies. With the Frequentis Maritime product suite MarTRX, coast guard organisations can enable continuous, high-quality services – even in the face of severe disruption.”

Khashayar Saravandi-Rad, Vice President Maritime, Frequentis

Client profile

A large European coast guard organisation responsible for monitoring and managing several thousand of kilometres of coastline and territorial waters. With a wide range of duties including customs, security, law enforcement and search and rescue, the organisation's radio operators perform continuous watchkeeping, maritime emergency radio, and digital selective call traffic monitoring to help keep maritime vessels safe.

Business situation

When the COVID-19 crisis hit Europe, this large coast guard organisation needed to act fast to ensure its operators could continue their vital work from home during a nationwide lockdown. The organisation looked for a way to fulfil its aim of using only off-the-shelf equipment and consumer broadband connections.

Solution

The coast guard engaged Frequentis to implement a highly sophisticated extension of its latest MarTRX solution, and deploy virtual operator working positions on the coast guard's existing virtual server cluster. The new approach allows operators to deliver Global Maritime Distress and Safety System (GMDSS) monitoring and rescue coordination services via an intuitive interface while in lockdown at their homes.

Impact

- Enables the coast guard to spin up remote operations for its operators in just two weeks, helping to protect maritime users during the national lockdown.
- Delivers a full range of functionality for remote users, including radio watchkeeping, maritime emergency radio, and digital selective call (DSC) traffic handling.
- Boosts the organisation's resilience in the event of future operational disruption, reducing the risk of service outages.

Thanks to the MarTRX solution, the coast guard achieved its goal of delivering a consistent, 24/7 service for maritime stakeholders during the pandemic, helping to maintain high levels of safety and security. Looking ahead, the organisation is now better prepared for future risks: from natural and environmental disasters to terrorist incidents.

Coordinating nationwide safety operations

To help keep private and commercial maritime stakeholders safe, the country operates a network of coordination centres that continuously monitor radio traffic and help to direct search and rescue efforts in the event of maritime emergencies.

When the country suddenly announced a strict nationwide lockdown, the coast guard organisation knew that it needed to react rapidly to ensure it could continue to deliver its vital services within the stringent new restrictions.

Dealing with the challenges of lockdown

To achieve its goal, there were some tough technical challenges to solve. The new approach had to allow dozens of operators to use commercial-off-the-shelf laptops and audio equipment, all connected via consumer-grade broadband internet services. Despite these limitations, the organisation couldn't compromise on availability or capabilities.

Pressed for time, the coast guard engaged experts from Frequentis to help find a solution. Within just two weeks, task forces from both organisations had designed, validated, implemented and configured a remote-working solution. Powered by MarTRX, the new platform extends the coast guard's existing virtual server cluster with virtual operator working positions. These positions are accessible via encrypted consumer broadband connections from anywhere in the world—enabling operators to work from their homes during the national lockdown.

Enabling highly available remote operations

With a consistent user interface and standardised workflows, MarTRX makes it easy for operators to attain and maintain high levels of situational awareness, streamline their decision-making, and adhere to the organisation's rules and best practices. Crucially, the Frequentis solution delivers dependable levels of reliability and availability for mission-critical communications—ensuring that the coast guard can maintain a high-quality service for maritime stakeholders 24 hours a day, seven days a week.

Since it partnered with Frequentis to deliver its new remote-working solution, the coast guard has succeeded in delivering a continuous service with zero interruptions to date.

Ready for anything

The coast guard is confident that its MarTRX solution will deliver value long after the current crisis is over. By embracing a future-facing approach to communications based on a container-based architecture, virtualisation and the cloud, it will be fast, straightforward and cost-efficient for the organisation to evolve its capabilities. Moreover, the coast guard has strengthened its business resilience and continuity in the event of future threats: from natural and environmental disasters to human-based hazards such as war and terrorism.

“Frequentis sees that fully software-defined solutions – free from proprietary hardware restrictions – will play a key role in the maritime control centres of the future. The success of our work with this large coast guard organisation demonstrates that such an approach can deliver the scalability and extensibility to support tomorrow's communications requirements.”

Khashayar Saravandi-Rad, Vice President Maritime, Frequentis



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