



TeamViewer
IoT

Danelec
Value from maritime data

Remote Connectivity & Control in Maritime IoT Environments

The TeamViewer IoT integration with Danelec Marine enables secure remote access and control in the maritime industry.



The TeamViewer IoT & Danelec Marine Solution

Danelec Marine develops technologies to optimize safety, cost, and performance in the maritime industry. The Danish company is a leading manufacturer of the Voyage Data Recorder (VDR), which is designed to collect and store data generated by position, motion, physical condition, steering, engine health and control sensors on board of industrial vessels.

The Vessel Remote Server (VRS) provides a secure connection to the VDR. The combined Danelec and TeamViewer IoT solution presents a much-needed upgrade for the marine industry and solves several problems faced by owners and operators.

The customized version of the TeamViewer IoT software is perfectly embedded in the Danelec VRS operating system. Information from the vessel or other critical components is consolidated, transmitted, stored centrally, and shared using a single platform.

The solution enables fast and simplified ship-to-shore connectivity, secure management of connected fleets, and new capabilities for remote operations. Service teams working with individual vessels and subsystems attain a new level of flexibility by monitoring and calibrating sensors remotely, without any operational disruption.



Casper Jensen,
CEO Danelec Marine

"The system answers our customers' need for easier installation and management of secure remote access, and is relevant for OEMs looking to integrate low-cost, standardized remote access into their products or platforms."

Challenges of The Maritime Industry

- Inspections and maintenance are costly and time-consuming, as they can only be performed when the vessel is in port.
- Setting up VPN-based solutions in ship networks is difficult and often requires specialized IT knowledge.
- Limited bandwidth availability for satellite connections at sea, unreliable ship-to-shore connections, and firewalls blocking incoming traffic.
- VPNs require complicated and expensive changes in security settings, special hardware, regular maintenance, and reconfiguration.

Solution Key Features

- ✓ Remote one-click access to connected vessel networks with secure management and operations capabilities.
- ✓ Easy setup and configuration that does not require special IT knowledge, as no additional fleet management software needs to be installed.
- ✓ Optimized for low-bandwidth connections, reliable ship-to-shore connections, no firewall manipulation necessary.
- ✓ TeamViewer IoT can be installed directly on the device, is highly scalable and does not require maintenance after installation.

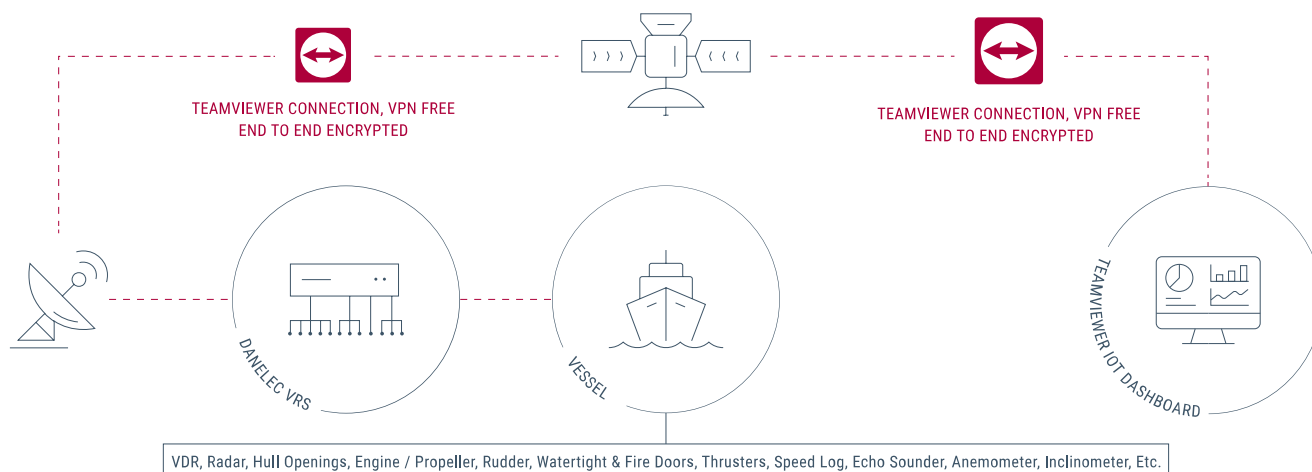


Figure: TeamViewer connectivity streamlines data-flow from onboard devices and systems to cloud and other platforms

Solution Highlights

VPN-free Remote Access

TeamViewer IoT ensures a secure connection to the mainland without depending on complex, unreliable VPNs. The system creates a secure, fully end-to-end encrypted tunnel from the VRS to the service team – without a “man in the middle”. TeamViewer does not need to be added to the fleet firewall list and the connection can be further secured using two-factor authentication.

Access and User Management

Pre-defined roles and authorization levels ensure that VRS access is fully secured. IT managers and their representatives receive a virtual set of keys to access the system. Authorized personnel or third parties can be granted secure and limited access, which can be withdrawn from the TeamViewer Management Console once the assignment has been completed.

Pre-Annual Performance Test

VDRs are subject to Annual Performance Tests (APT), which are often costly and time-consuming. With Remote Access, each VDR sensor is checked remotely before the vessel enters the port. Service technicians can therefore be informed ahead of time and can equip themselves with the appropriate tools and spare parts before the ship arrives. This way, the APT is performed more efficiently and unsuccessful outcomes with subsequent delays are avoided. This reduces time in port and maintenance costs.

About TeamViewer

As a leading global technology company, TeamViewer offers a secure remote connectivity platform to access, control, manage, monitor, and support any device – across platforms – from anywhere. With more than 600,000 customers, TeamViewer is free for private, non-commercial use and has been installed on more than 2.5 billion devices. TeamViewer continuously innovates in the fields of Remote Connectivity, Augmented Reality, Internet of Things, and Digital Customer Engagement, enabling companies from all industries to digitally transform their business-critical processes through seamless connectivity. Founded in 2005, and headquartered in Göppingen, Germany, TeamViewer is a publicly held company with approximately 1,400 global employees. TeamViewer AG (TMV) is listed at Frankfurt Stock Exchange and belongs to the MDAX.

www.teamviewer.com

About Danelec

Danelec Marine is based outside of Copenhagen, Denmark. The company is a leading manufacturer of Voyage Data Recorders (VDR), Electronic Chart Display and Information Systems (ECDIS) and ship-2-shore data solutions, with products installed on more than 6,000 vessels worldwide. Danelec is committed to providing the most effective product and services that help customers in the marine industry to meet changing regulations and to operate more efficiently through the application of data collected on board and accessed in the cloud.

www.danelec-marine.com