Energy consumption: one of the biggest stakes for maritime transports.

One of the greatest challenges for maritime transports is to reduce carbon emissions and energy consumption. Nearly 10 billion tons of goods are transported on more than 100,000 container ships per year. Their main challenge is to deliver quality transport by controlling costs and reducing their carbon footprint. Maritime transport is responsible for almost 2.5 percent of total greenhouse gas emissions, according to the International Maritime Organization.

Each container ship carries up to 20,000 containers for an average duration of three months. Each container carrier is equipped with more than 2,000 IoT systems (sensors, probes, cameras), which enable them to navigate, regulate their consumption and monitor the quality of freight transport.

Around 50,000 cargo ships travel the world to deliver around 90% of world trade. Maritime transport is a pillar of internationalization and development; however, it is expected to account for 17% of greenhouse gas emissions by 2050. Faced with this situation, cargo companies have been committing for several years to drastically reduce their ecological footprint.
Energy consumption sparing in maritime transportation

Reduce cargo energy consumption.

Take advantage of your IoT data for optimized energy consumption

BullSequana Edge offers significant benefits to improve energy consumption.

The analysis of all the data on AI algorithms allows carriers to optimize ship performance and reduce oil consumption by 20%.

The Siemens Waste Heat Recovery System coupled with the BullSequana Data Analytics solution uses the heat emitted to generate steam and produce electricity. This way, you reduce your energy consumption by 12%. This data can be processed via satellite channel on the cloud or terrestrial data center.

BullSequana Edge thus meets your business constraints:

• Ensure constant analysis
  BullSequana Edge ensure an efficient continuous service, including in white areas in the open sea.

• Use of data analysis results in real time and locally
  Real-time decision unable to adapt itinerary in real-time depending on winds, courants to spare energy. Here, your environmental impact is limited, up to 30% lower and you reduce operational costs.

• Maintain the sovereignty of all your data
  Intrusion detection and data encryption systems protect your data from external threats.

• Reduce operational costs
  Data storage and analysis cost in the cloud is significant for high volume and complex data especially in maritime areas due to satellite provider dependency. Thanks to local and autonomous storage and analysis, BullSequana Edge allows lower costs. Data is sent to the cloud for mid/long term storage and monitoring.

Deploy BullSequana Edge in any type of plant environment

To make the best local decisions, you need to have local information on the environment. BullSequana Edge is optimized to operate in complex environments (dust, extreme temperatures, unstable grounds, etc.), which makes it possible to analyze massive data where your IoT is. Our product can be safely placed in a cargo.

To ensure physical protection, cooling, early fire detection and power distribution, we offer specific displays in racks.

Meet higher customer expectations with BullSequana Edge.

To reduce energy consumption, such parameters as cargo height, weight, type of merchandise and environmental conditions such as currents, air pressure, temperature, resistance between the water and the hull, wind, energy absorption.

Precise and real-time data analysis identify levers to reduce energy consumption.