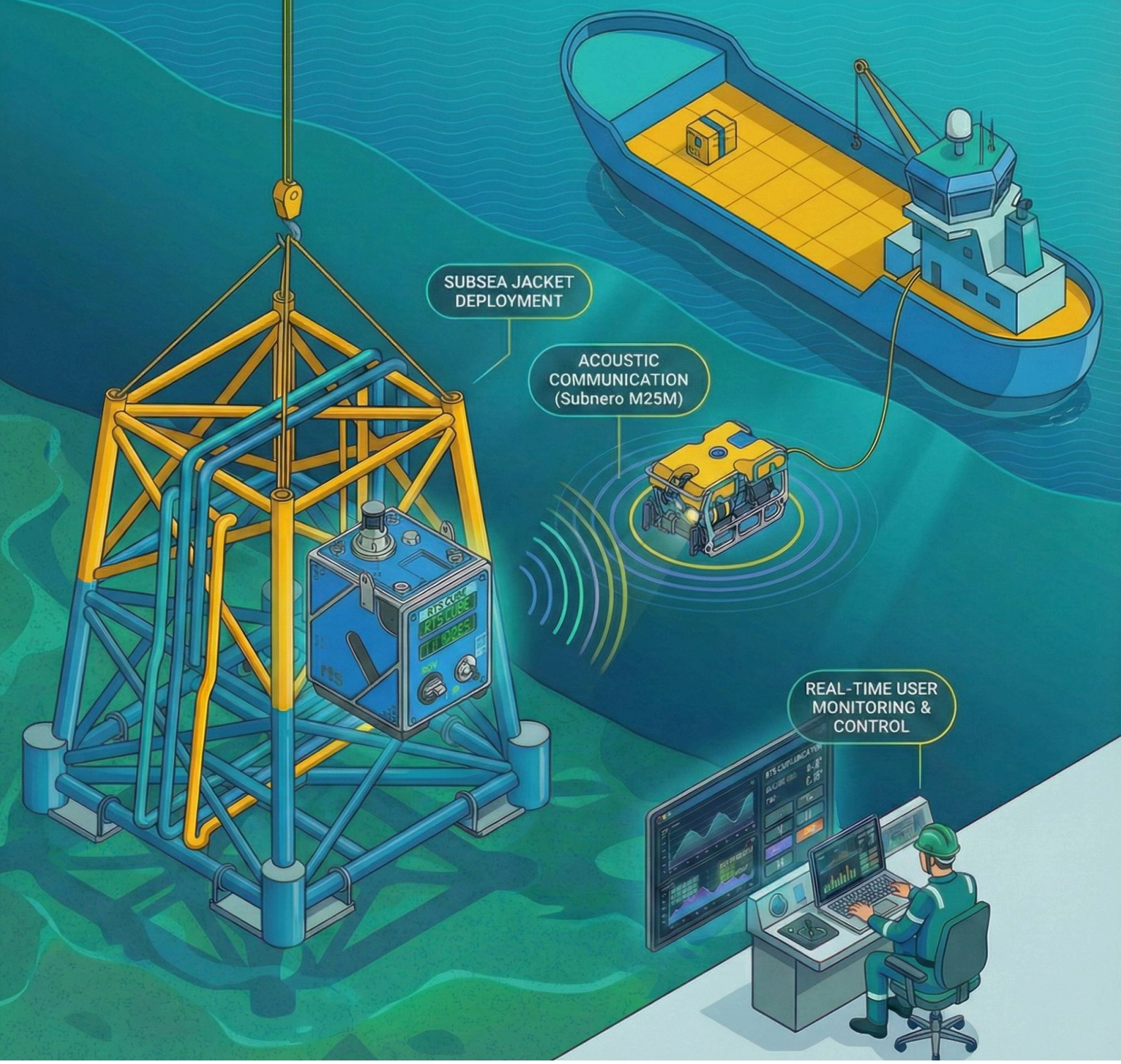
SUBNERO

CUSTOMER SUCCESS STORY

Enhancing Subsea Connectivity for RTS Cube Systems

How RTS enhanced the performance and future readiness of its RTS Cube systems using Subnero smart modems.



RTS Cube system communicating wirelessly with topside assets using Subnero M25M acoustic smart modems.

Executive Summary

For more than a decade, RTS – Rental Technology & Services has delivered reliable subsea measurement and monitoring solutions to the marine and offshore industry. As parts of the existing system approached end-of-life and newer digital technologies matured, RTS saw an opportunity not only to modernize the platform, but also to evaluate alternative suppliers and unlock new functionalities.

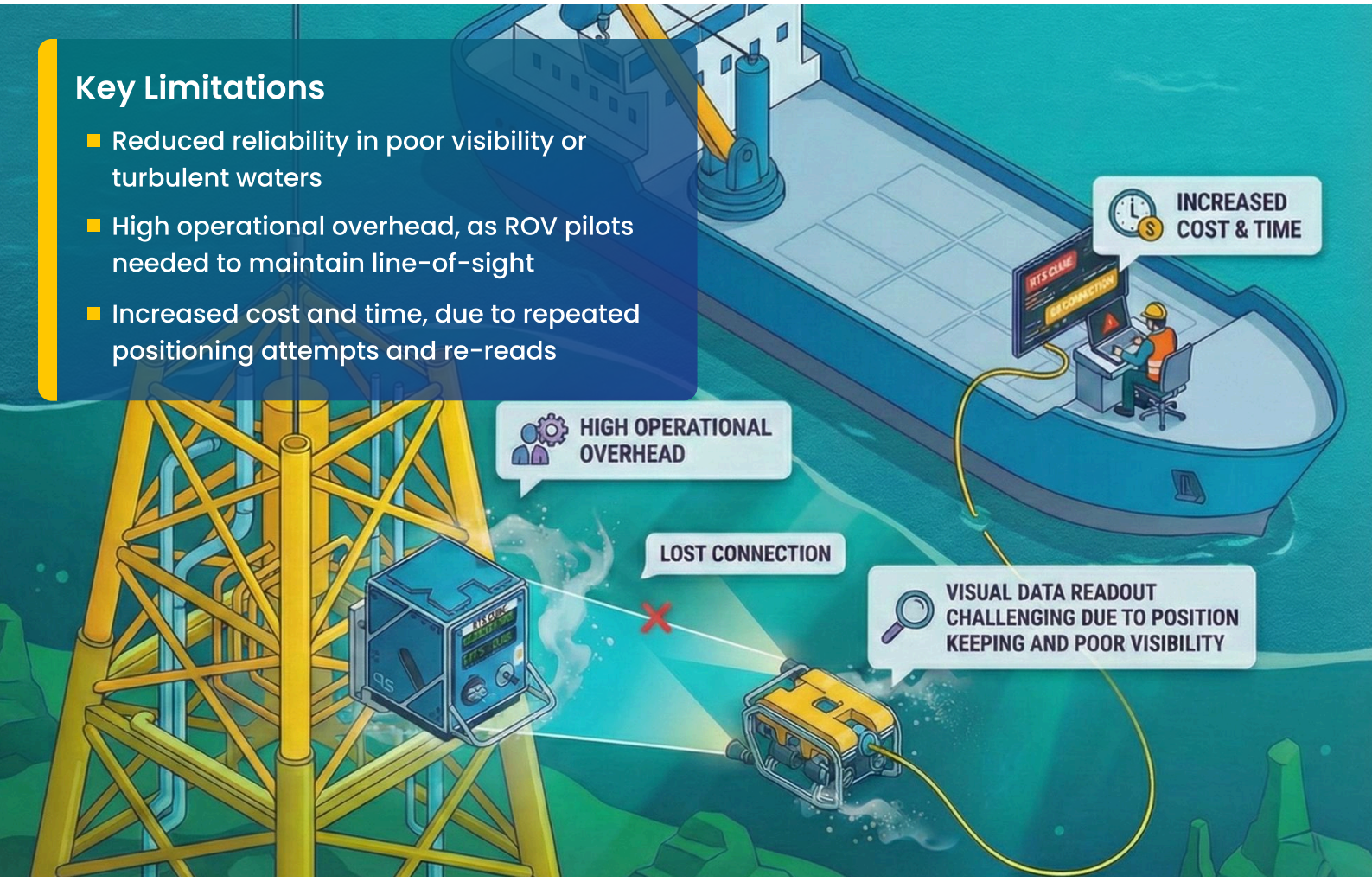
By integrating Subnero's software-defined acoustic smart modems, RTS has strengthened real-time underwater communication between subsea structures and topside assets, while also opening up new possibilities for edge processing, data logging, automation, and smarter system integration, marking a natural next step in the evolution of the RTS Cube platform.

The Challenge

During subsea construction operations, operators rely on real-time deflection, tilt, and attitude data from RTS Cube systems installed on underwater structures. RTS has long delivered this data reliably using a combination of underwater displays and acoustic communication systems across numerous offshore projects. However, as legacy hardware approached end-of-life, RTS identified the need to modernize its communication architecture to ensure long-term availability, greater flexibility, and support for future capabilities. Increasingly complex operations in challenging shallow-water and nearshore environments further highlighted the need for improved configurability, network management, and onboard intelligence beyond basic data transmission.

Key Limitations

- Reduced reliability in poor visibility or turbulent waters
- High operational overhead, as ROV pilots needed to maintain line-of-sight
- Increased cost and time, due to repeated positioning attempts and re-reads



Legacy workflow for retrieving sensor data via ROV visual readouts. Poor visibility and requirement for station keeping increase operational effort.

Customer Overview

RTS, with headquarters in Karmøy, Norway, is a premier supplier and rental company serving the global subsea industry. Established as a trusted partner in the North Sea region, RTS provides high-quality equipment and turnkey solutions for offshore survey, and subsea construction operations. With a strong focus on innovation, RTS develops its own products, such as the RTS Cube, to meet the demanding requirements of subsea projects across the world.

The Solution

As part of this modernization effort, RTS conducted thorough testing and evaluation of Subnero's M25M series acoustic smart modems as a potential replacement for the existing acoustic communication components within the Cube system. Built on the UnetStack software-defined networking framework, the Subnero modems demonstrated strong performance in demanding North Sea conditions and aligned well with RTS's long-term development roadmap. Following extensive testing of both the modems and their integration with the Cube systems, RTS selected Subnero as its new acoustic communication partner.

> "Our engagement with RTS demonstrates how modern, software-defined underwater networks can deliver tangible improvements in operational efficiency. The success of the Cube integration is a great example of what happens when innovation meets practical field experience."
>
> — Manu Ignatius
> *CEO, Subnero*

Subnero Acoustic Smart Modems

Operational Outcomes

Thanks to close collaboration between RTS and Subnero, integration and testing were completed efficiently, followed by smooth operational validation offshore.

1. Verified the Subnero M25M modems as a robust and reliable solution for its use case.
2. Upgraded RTS Cube systems to the new modem platform.
3. Completed more than five successful offshore deployments to date, demonstrating ease of use and stable performance.
4. Reduced operational turnaround time while improving flexibility, safety, and long-term maintainability of the Cube systems.

Key Benefits

1. Reliable in harsh conditions

Subnero modems maintained stable acoustic links between Cube systems and topside receivers during testing and offshore operations in the challenging North Sea environment.

2. Supports multiple links

The full networking stack enables simultaneous communication with multiple topside receivers, enabling seamless multi-node data exchange during complex offshore campaigns.

3. Flexible integration options

The software-defined architecture supports simple plug-and-play deployment today, while enabling deeper API-based and network-level integration as requirements evolve.

> "We did a thorough test before integrating the new Subnero modems into our Cube systems. The results showed significantly greater range and higher data rates compared to our existing solutions. In addition, the expanded functionality of the Subnero modems strengthens RTS's ability to deliver customized sensor packages for deployment in remote locations."
>
> — **Ivar Ersland**
> *Development Manager, RTS*

4. Smart operational control

Built-in features like adaptive power control automatically adjust settings depending on whether the modem is in-water or on-deck, simplifying operations.

5. Added functionality through edge processing

Beyond communication, the modems enable programmable edge-processing capabilities, including data logging, store-and-forward messaging, task scheduling, and autonomous sensor interfacing.

Looking Ahead

With the Cube systems now modernized using Subnero's acoustic smart modems, RTS has strengthened its position as an innovator in subsea instrumentation, combining proven operational experience with modern, software-defined technology.

The partnership between RTS and Subnero continues as both companies explore new applications where smart acoustic networking, onboard intelligence, and automation can deliver additional value to subsea construction, positioning, and monitoring operations, supporting the shared goal of smarter, safer, and more connected subsea solutions.

RTS Cube SDM

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