



# Naval Fleet

## Maritime Communications



“The bespoke 19” rack enabled Captec to provide a tailored solution to fit both the specific needs of the deployment process as part of a fleetwide retrofit, whilst providing the ruggedisation in the design needed for the challenge of maritime rack applications.”

**Peter Drake, Business Development Director**

The customer is a global leader in the defence sector, the largest defence supplier in Europe, and among the top 10 defence companies worldwide. It manufactures tactical and strategic airlifters, multi-role aerial tankers and advanced combat aircraft.

The solution provides a refresh to existing military satellite communications, across the networks of 20 royal naval ships as part of a retrofit program.

### Requirements & Issues

- ▶ Outsource of bespoke 19” rack integrated with COTS, and military communications equipment
- ▶ Limited installation available cabinet size and weight specification due to retrofit
- ▶ Incorporation of pre-defined military communications equipment to a 19” rack
- ▶ Certification for shock and vibration to DEF-Stan 00-35
- ▶ Integration of non-military commercial products such as network switches
- ▶ Integration of MOD approved CO2 injection system for equipment protection against fire.

## The Solution

- ▶ Collaborative project services, enabled the customer to both outsource, whilst still being actively involved in the project development
- ▶ Modular aluminium construction to reduce lifting weight and enabling the rack to be assembled onsite, mitigating the need to cut holes in vessels during installs
- ▶ Design and modelling to ensure the lightweight modular design was robust enough for environmental certifications
- ▶ Bespoke equipment trays to house none rackmount equipment, providing integrated power conversion, cooling and ruggedisation
- ▶ COTS equipment ruggedisation procedure agreed with third-party vendors to maintain the warranty
- ▶ Doorless design with baffling to reduce overall space requirements
- ▶ Bespoke power distribution unit to address the range of fitted equipment electrical requirements, and the need for an emergency power off (EPO) switch



## The Outcome

- ▶ The solution enables naval military satellite communications to be updated to a modern IP backbone
- ▶ Deployment to over 20 vessels, fully commissioned and performing well
- ▶ Snag-free installation as part of a retrofit
- ▶ Customer outsourcing objective complete, whilst still maintaining close development input and review



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