



# The Smart Reefer Container

**Complete visibility and advanced control of your assets, even at sea**

The increasing challenge of moving refrigerated food and pharmaceuticals through the global shipping supply chain calls for advanced reefer container IoT technologies to optimise efficiency, simplify compliance and protect cargo.

ORBCOMM's IoT solutions connect containers to deliver data that drives better business decisions along with alerts and control capabilities to remotely protect cargo. With IoT telematics devices, sophisticated sensors, applications and APIs to integrate the information into enterprise systems, ORBCOMM's smart reefer solutions are the single source for complete, end-to-end remote reefer management.

# Smart reefers for the new supply chain

With the largest global market share of reefer container deployments, ORBCOMM telematics connect previously dark and dumb reefer containers into a highly integrated, fully interoperable, end-to-end digitised supply chain designed to minimise business risk and disruption, and maximise security, safety and profitability.



## Smart cold chain monitoring

### See, even at sea

Traditional container telematics solutions have black holes, particularly out at sea, where the critical stream of data is broken. ORBCOMM solutions see through blind spots with multiple industry-leading IoT connectivity options that include terrestrial, satellite and innovative vessel-based networks that ensure the uninterrupted flow of information. Add our pioneering satellite AIS data stream—we're the largest AIS data provider in the world—and see any container, anywhere.

### Enhanced operational efficiency

When you can pinpoint every container anywhere and run processes remotely, you can streamline distribution at arrival, minimise downtime, identify troubling patterns in particular supply chains or transport routes and plan for more efficient hand-offs. Plus, further boost efficiency and reduce costs with proactive predictive maintenance and remote pre-trip inspections that run themselves while in transit.

### Protect refrigerated cargo

With smart reefer technology, temperatures can be monitored and corrected remotely before loads end up compromised, helping to keep customers satisfied, to ensure cargo remains compliant and to reduce costly insurance claims and premiums. Get AI-driven alerts of discrepancies tailored to suit your operational tolerances and detect theft and tampering. Monitor ship-to-port-to-overland transfer of sensitive cargo and get reports on shock events, humidity, controlled atmosphere levels and more.

### Improved customer service

Use smart reefer data to meet the increasing market demand for shipment visibility and traceability. Gain a competitive edge through intelligence, winning more business, improving customer relations and decreasing supply chain risk. Provide more accurate predictive ETAs to shippers, BCOs and 3PLs to improve their experience and to better manage and resolve delays as they happen.



# Key features

## Seamless interoperability

Easily share data across different devices and platforms to support vessel partnerships and to stay compliant with DCSA data interoperability standards.

## Global network connectivity

Seamlessly switch to the most appropriate and least cost network available (2G/3G/4G LTE) to ensure uninterrupted data flow as containers move through the supply chain.

## Flexible installation

The container telematics device can be installed permanently or temporarily on reefer containers, enabling single-trip or guest reefer tracking and tracking while assets are at a yard or terminal. Monitor temperature parameters on ISO marine tank containers to ensure cargo integrity.

## Easy data log access

Remotely power up a reefer's microcontroller to access data logs without sending personnel into the field.

## Container-penetrating sensors

LoRa-based wireless sensor technology—including door, light, cargo and temperature monitoring—ensures consistent data flow from within containers without the limitations of traditional wireless sensors.

## 24/7 live monitoring services

With our optional comprehensive exception management, shipping lines can rest assured that issues are being addressed around the clock. We supply efficient, experienced live monitoring so your staff doesn't have to, ensuring your cargo continues to move along the supply chain.

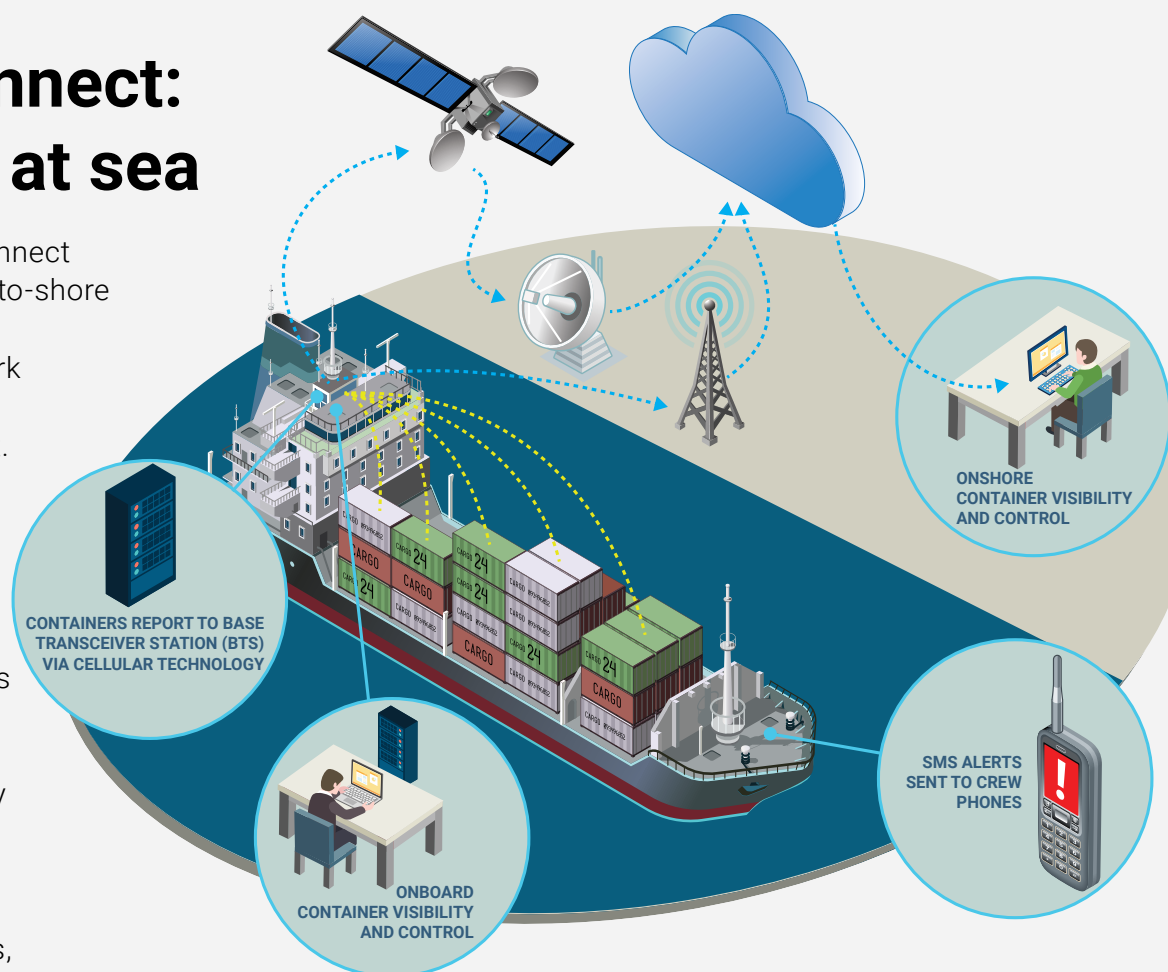
## VesselConnect: See, even at sea

ORBCOMM's VesselConnect enables local and ship-to-shore communications via an onboard cellular network to improve reefer container management.

By allowing crews to monitor temperature, humidity, reefer status and more remotely, the need for manual checks can be eliminated, enhancing efficiency, ensuring cargo integrity and minimising risks to crew members.

With event-based alerts, crew members can be notified when issues occur, allowing them to take immediate action while onshore office employees

can view all the bays and containers on a single user-friendly platform.



# Five reasons to choose ORBCOMM

## 1 **Proven**

ORBCOMM is a pioneering global leader in industrial IoT. Choose a solution that has proven itself through decades of experience and expertise, with more than 2.2 million subscribers overall, and more than 700,000 current cold chain subscribers around the world.

## 2 **End-to-end**

Our solutions feature best-in-class technology and include intelligent IoT telematics, seamless multiple connectivity modes and powerful multi-asset management and vessel-based platforms, ensuring all assets deliver information from road, rail or sea.

## 3 **Interoperable**

Supporting communication standards and data models set by the COA and DCSA, ORBCOMM's devices and open

platforms allow easy data sharing with partners, customers and other stakeholders and integrate seamlessly with third-party devices, data streams and enterprise platforms.

## 4 **Always connected**

With our vessel-based network, satellite-based AIS data service, multiple terrestrial and satellite network technologies and 24/7 data monitoring services, ORBCOMM offers unmatched global coverage to support diverse use cases and mission-critical information streams, even for assets far at sea.

## 5 **Complete support**

With global best-in-class multilingual sales, service and 24/7/365 technical support teams, we support customers from assessment to deployment to ongoing free customer care.

**For more information on our solutions or to book a demo:**

**Email: [sales@ORBCOMM.co.kr](mailto:sales@ORBCOMM.co.kr) | Call: 82.2.3444.7311**

**Visit our website [www.ORBCOMM.co.kr](http://www.ORBCOMM.co.kr)**

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ORBCOMM is a pioneer in IoT technology, empowering customers with insight to make data-driven decisions that help them optimise their operations, maximise profitability and build a more sustainable future. With 30 years of experience and the most comprehensive solution portfolio in the industry, ORBCOMM enables the management of over a million assets worldwide for a diverse customer base spanning transportation, supply chain, heavy equipment, maritime, natural resources and government. For more information about how ORBCOMM is driving the evolution of industry through the power of data, visit [www.orbcomm.com](http://www.orbcomm.com).