



WHERE DATA DRIVES DECISIONS

## The Future of Cold Chain Technology

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ORBCOMM





# ABOUT ORBCOMM

Proven, trusted leader: 15+ years of experience in maritime asset monitoring technology

First reefer container IoT deployment in 2007; first large-scale dry container IoT deployment in 2022

Largest aftermarket container IoT player worldwide

Diverse customer base of world's biggest shipping lines, rail companies, ports and terminal operators

**600,000+ Reefer containers deployed since 2009**

**850,000+ Intermodal containers and dry trailers deployed since 2017**

 **TOTE**  
Maritime



 **ONE**  
OCEAN NETWORK EXPRESS

 **CROWLEY**

 **Hapag-Lloyd**







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# THE TRADITIONAL CASE FOR REEFER DIGITALIZATION

Lack of visibility

Avoidance of spoiled loads

Reduction of claims

Cargo security and integrity issues

Asset underutilization

High manual monitoring costs

High cost of PTI

Need for interoperability through data sharing  
and data standardization





# GROWING REQUIREMENTS

Transparency for cargo owners

Higher level of data detail

Load and cargo integrity

Improve crew safety

Sustainability data

Help compliance with environmental regulations

New services and revenue opportunity

Continuous fleet health analysis

Preventive maintenance



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M:10° × 7.586

## The technology is here today



# DELIVERED BY REEFER CONTAINER IOT

Increase visibility

Enhance operational efficiency

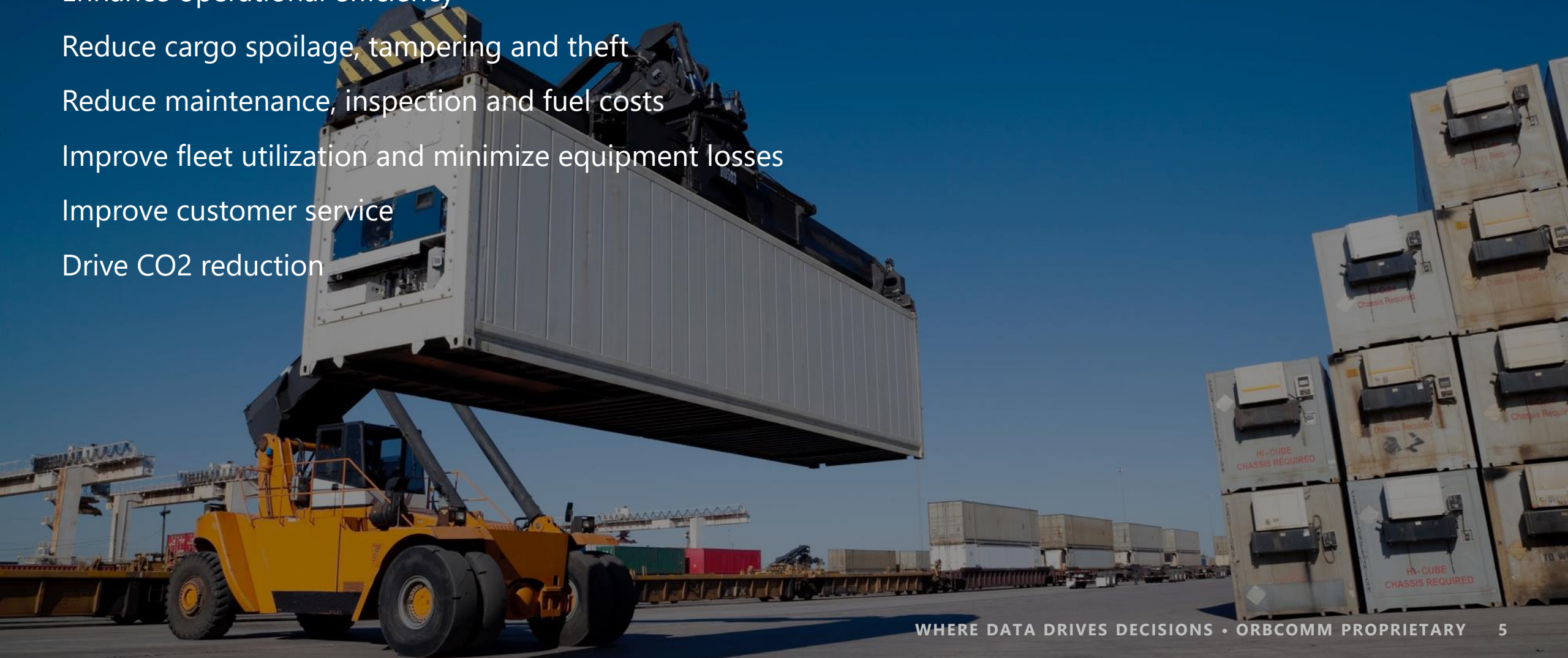
Reduce cargo spoilage, tampering and theft

Reduce maintenance, inspection and fuel costs

Improve fleet utilization and minimize equipment losses

Improve customer service

Drive CO2 reduction



# THE SMART CONNECTED REEFER CONTAINER

Real-time visibility with GPS tracking

Temperature monitoring

Remote reefer control

Configurable alerts

Cargo care profiles

Pre-trip inspection management

Booking system integration

Remote reefer  
temperature  
monitoring

Remote  
temperature  
control

Alerts

Cargo  
temperature  
sensor

Location  
tracking

CargoCare  
profiles

Impact  
monitoring

CargoCare  
door sensor

Geofences

Optional  
vessel  
network



# PART OF COMPREHENSIVE REEFER SOLUTION

Single pane of glass for all assets and all devices

Deep reach, coverage and connectivity at sea

Widest possible global cellular coverage devices and SIMs

APIs to third party systems

Integration with other services like AIS, BIC, booking data

Compliance with standards DCSA, COA, ATEX



# DATA-DRIVEN CARGO CARE TO REDUCE SPOILAGE

Business rules engine in ORBCOMM's container software platform

Identifies cargo-affecting events on live bookings

Customizable rules, alerts and event triggers

Profiles created for cargo types, SLAs, deviation alerts

Assign profiles to one or groups of containers





# INTEROPERABILITY: BRINGING IT ALL TOGETHER FOR ZIM

Mix of telematics devices, reefer OEMs and platforms

Different tracking devices from third party vendors

Single pane of glass solution

Data interoperability and standardization

API integration with *ZIMonitor*

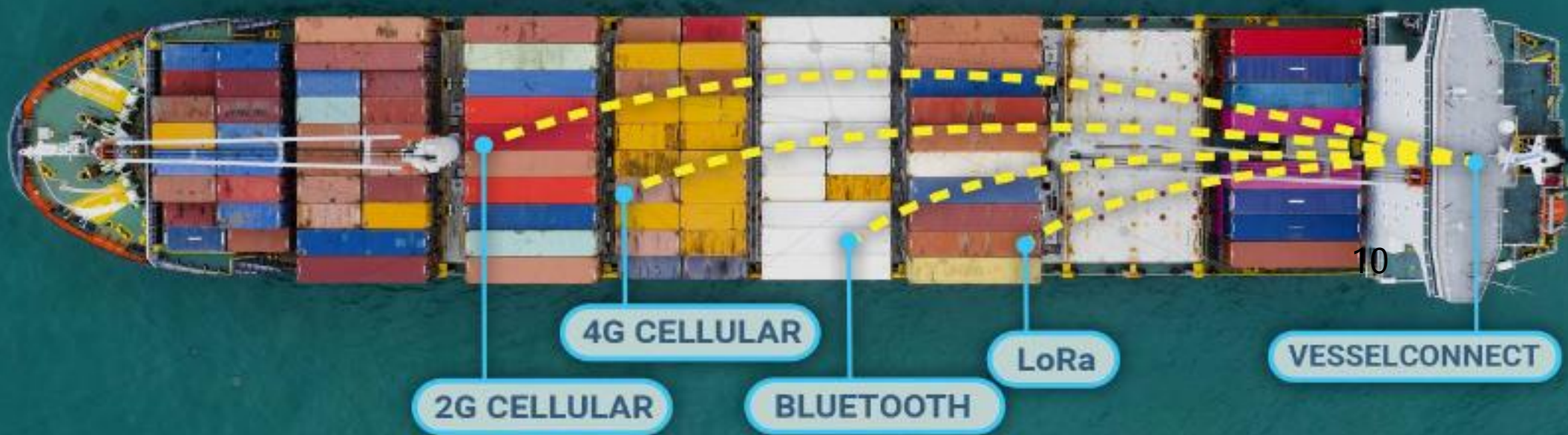


**Gil Lehmann, ZIM**

"ZIM can leverage the unique interoperability to access data from multiple types of OEM and third-party telematics devices through a comprehensive, integrated platform."

# VESELCONNECT: VISIBILITY AT SEA

Visibility and control can't stop when the ships leave shore. VesselConnect is an onboard data solution that delivers visibility even deep at sea, where containers were traditionally out of sight.





# THE FUTURE

Smaller, fewer, more powerful components

New sensors

OEM fitted devices

Multiple data service levels to end users, cargo owners

Data delivery fully independent of OEM, device type, location

Covert installation, rapid retrofit installation times

Full vessel autonomy

Predictive maintenance

Mobile apps for land and vessel



# Thank you!

## Want to continue the conversation?

Come to Booth D68 and we would love to meet you, or we can schedule a call to talk about how container IoT can help your business.

Contact us: [info@ORBCOMM.com](mailto:info@ORBCOMM.com)

Visit our website: [www.ORBCOMM.com](http://www.ORBCOMM.com)

## Any questions?

