# Trailer and Cargo Container Tracking











**Trailer and Cargo Container Tracking** is the sixth consecutive report from Berg Insight analysing the latest developments on the trailer and cargo container tracking market worldwide.

This strategic research report from Berg Insight provides you with 220 pages of unique business intelligence including 5-year industry forecasts and expert commentary on which to base your business decisions.

# Highlights from this report:

- Insights from 30 new executive interviews with market leading companies.
- Comprehensive overview of the real-time cargo tracking value chain and key applications.
- In-depth analysis of market trends and key developments.
- Summary of major cargo tracking initiatives from the EU and the US.
- Updated profiles of 93 container tracking solution providers.
- Detailed forecasts by market vertical lasting until 2022.



Please visit our web site to order this report and find more information about our other titles at www.berginsight.com

See inside for further details ->

### Berg Insight's M2M Research Series

What are the key business opportunities in the emerging wireless M2M/loT market? Berg Insight's M2M Research Series is a unique series of 35 market reports published on a regular basis. Each title offers detailed analysis of a specific vertical application area such as smart metering, fleet management or vehicle telematics. Once per year we also publish summaries of our research with detailed forecasts for the Global and European wireless M2M markets, respectively.

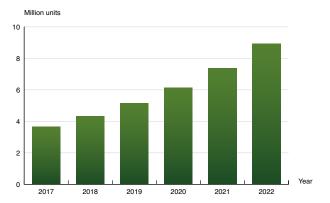
INSIGHT \*

# The installed base of active cargo tracking units has reached 3.7 million

Trailer and cargo container tracking is a subsegment of asset tracking and aims to increase operational efficiency and make logistics chains more secure. Berg Insight's definition of a real-time tracking solution is a system that incorporates data logging, satellite positioning and data communication to a backoffice application. Trailer tracking can be part of fleet management solutions including both trucks and trailers. The history of fleet management solutions goes back several decades while tracking and monitoring of shipping containers came in focus after 9/11. Today, mobile and satellite networks can provide ubiquitous online connectivity at a reasonable cost and mobile computing and sensor technology delivers high performance as well as excellent usability. All of these components combined enable the delivery of supply chain management, security management and operations management applications linking trailers, containers, cargo and enterprise IT systems.

In order to make freight transport efficient, products are packed into collective logistics units which can remain intact throughout the delivery chain. Smaller logistics units such as boxes and pallets are often grouped into larger units and loaded on trailers, semi-trailers, swap bodies, rail freight wagons, air freight unit load devices (ULDs) or intermodal shipping containers. These loading units can be applicable to one or more modes of transport. Trailers and semi-trailers are mostly used in road transport, swap bodies can be transferred between road and rail transport, rail freight wagons are used on railways, ULDs are used in air freight transport and shipping containers can be carried on several transport modes. More than 20 million intermodal containers and over 13 million trailers are in use worldwide.

Berg Insight estimates that shipments of remote tracking systems with cellular or satellite communication capabilities for cargo loading units including trailers, intermodal containers, rail freight wagons, air freight cargo containers, cargo boxes and pallets reached 0.9 million units worldwide in 2017. Growing at a compound annual growth rate of 20.9 percent, the shipments are expected to reach 2.4 million units in 2022. During the same period, the installed base of remote tracking systems is forecasted to grow at a compound annual growth rate of 19.6 percent from 3.7 million units at the end of 2017 to 8.9 million units by 2022. Trailer tracking is the largest market segment, estimated to account for 49.3 percent of the total installed base of tracking units deployed on trailers and cargo containers in 2017. Intermodal container tracking is



Installed base of active trailer and cargo container tracking units (World 2017–2022)

the second largest segment with an estimated share of 32.9 percent of the total installed base at the end of 2017.

Berg Insight ranks ORBCOMM as the largest provider of tracking solutions for cargo loading units, having a significant installed base of trailers as well as containers. The company has in the past years been highly involved in M&A activity related to real-time asset tracking, including notable acquisitions such as Blue Tree Systems, Euroscan and WAM Technologies. The latter was involved as a subcontractor for the Maersk/AT&T project to roll out a system for real-time tracking of Maersk entire fleet of 270,000 refrigerated containers. The project is one of the largest cellular-based industrial IoT deployments of its kind. The North American trailer telematics market is dominated by ORBCOMM and SkyBitz which both have more than 300,000 active units, while Omnitracs, Spireon and I.D. Systems all have surpassed 100,000 units. The European trailer telematics market is considerably smaller. Idem Telematics is the leading player with 60,000 active units while other top Europe-based players include Schmitz Cargobull and Novacom with over 25,000 active trailer units each. Mecomo and Agheera, also based in Europe, are strong vendors in the adjacent swap body segment. Envotech and Numerex, based in Malaysia and the US respectively, have large installed bases on containers. Amsted Rail, Asto Telematics and Nexiot have all deployed thousands of tracking devices on rail freight wagons. Other significant players include Sensitech that has an installed base of over 200,000 units in the general cargo segment and OnAsset Intelligence which is active in the air freight cargo tracking market.

Berg insight anticipates that there will be a strong focus on increased supply chain visibility and transport security in the coming years. Tracking of trailers, intermodal containers and rail freight wagons is increasingly common and technology advancements allow for eversmaller logistics units such as individual pallets or cargo boxes to be tracked at a reasonable cost. General acceptance of remote tracking solutions will first be established in specific usage scenarios such as high-value, time-critical or refrigerated goods. Decreasing hardware costs, improved battery life and the emergence of LPWA technologies are expected to impact the market positively and foster wide-spread adoption of cargo tracking solutions in the coming years.

#### This report answers the following questions:

- Which are the leading providers of trailer and cargo container tracking solutions?
- What offerings are available from device vendors and service providers?
- What impact will international regulations and security initiatives have on the market?
- What are the key drivers behind the adoption of cargo tracking devices?
- What are the recent merger and acquisition activities on this market?
- What impact will technology advancements have on the market?
- How will the cargo telematics industry evolve in the future?

#### **Executive Summary**

1	Global freight transportation	n
	overview	

#### 1.1 International merchandise trade

- 1.1.1 Freight transportation modes
- 1.1.2 Logistics units and containerisation
- 1.1.3 Ports, terminals and trade lanes
- 1.2 Intermodal shipping containers
- 1.2.1 Container fleet
- 1.2.2 Container manufacturers
- 1.2.3 Container ships
- 1.2.4 Container ownership structure
- 1.2.5 Container shipping companies
- 1.2.6 Container leasing companies

#### 1.3 Trailers, semi-trailers, rail freight wagons and ULDs

- 1.3.1 Trailers and semi-trailers
- 1.3.2 Rail Freight Wagons
- 1.3.3 Air freight unit load devices
- 1.4 Other transport industry actors
- 1.4.1 Consigner/Consignee
- 1.4.2 Freight forwarders
- 1.4.3 Customs and regulatory authorities
- 1.4.4 Terminal operators and ground handlers

#### 2 Trailer and cargo container tracking solutions

#### 2.1 Trailer and cargo container tracking infrastructure

- 2.1.1 Trailer and cargo container segment
- 2.1.2 GNSS segment
- 2.1.3 Network segment
- 2.1.4 Service segment
- 2.2 Supply chain management
- 2.2.1 Cargo and inventory management
- 2.2.2 Insurance risk management
- 2.3 Security management
- 2.3.1 Theft, accident and damage security
- 2.3.2 Terrorism and illegal and dangerous goods security

#### 2.4 Trailer and container operations management

- 2.4.1 Container and trailer management
- 2.4.2 Container and trailer transport management

#### 2.5 Regulatory compliance and reporting

- 2.5.1 Supply chain security and environmental programs
- 2.5.2 Tax collection

#### 2.6 International container and cargo tracking technology initiatives

- 2.6.1 The Integrity project
- 2.6.2 The Smart-CM project
- 2.6.3 The Cassandra project
- 2.6.4 The CONTAIN project2.6.5 The iCargo project
- 2.6.6 The CORE project
- 2.6.7 The RTICM project
- 2.6.8 The SaMoLoSa project
- 2.6.9 The US Department of Homeland Security's Cargo Security Programs

- 2.6.10 The RECONS project
- 2.6.11 The Apex-Secure Transit Corridors Project
- 2.6.12 The NexTrust project
  - 2.7 Business models

#### 3 Market forecasts and trends

#### 3.1 Market analysis

- 3.1.1 Installed base and unit shipments
- 3.1.2 Regional markets
- 3.1.3 Vendor market shares
- 3.2 Market drivers and barriers
- 3.2.1 Macroeconomic environment
- 3.2.2 Regulatory environment
- 3.2.3 Competitive environment
- 3.2.4 Technology environment
- 3.3 Value chain analysis
- 3.3.1 Telematics industry players
- 3.3.2 Cargo transport industry players3.3.3 Telecom industry players
- 3.3.4 IT industry players
  - 3.4 Future industry trends

#### 4 European solution providers

- 4.1 AEON Customs Consultancy
- 4.2 Agheera
- 4.3 Arviem
- 4.4 Asto Telematics
- 4.5 Bosch
- 4.6 CargoGuard
- 4.7 CSB Technologies
- 4.8 DHL
- 4.9 EPSa
- 4.10 Globe Tracker
- 4.11 Hirschmann Car Communication (TE Connectivity)
- 4.12 Idem Telematics
- 4.13 Identec Solutions
- 4.14 Kirsen Global Security
- 4.15 Kizy Tracking
- 4.16 KPN
- 4.17 **Loksys Solutions**
- 4.18 Macnil (Zucchetti Group)
- 4.19 Maersk Line
- 4.20 Masternaut
- 4.21 Mecomo
- 4.22 Nexiot
- 4.23 Novacom
- 4.24 Ovinto
- 4.25 RM2
- 4.26 SAVVY Telematic Systems
- 4.27 **Schmitz Cargobull**
- 4.28 SecureSystem
- 4.29 SuccorfishM2M
- 4.30 Sycada
- Transics (WABCO) 4 31 4.32 **TRAXENS**
- Trusted 4.33 4.34 Ubidata
- 4.35 Yellowfish (Fleetmonitor)
- 4.36 Zenatek

#### 5 North American solution providers

- 5.1 7PSolutions
- 5.2 Amsted Rail
- 5.3 AT&T
- 5.4 Ayantra
- 5.5 BlackBerry
- 5.6 BSM Technologies
- 5.7 CalAmp
- 5.8 DeWalt
- 5.9 Digi International
- 5.10 Digital Communications Technologies
- 5.11 e2e Logistics Consulting
- 5.12 Emerson
- 5.13 Fleet Complete
- 5.14 Fleetilla
- 5.15 Geoforce
- 5.16 Globalstar
- 5.17 Hi-G-Tek
- 5.18 Honeywell Global Tracking
- 5.19 I.D. Systems
- 5.20 Intelyt
- 5.21 Numerex (Sierra Wireless)
- 5.22 Omnitracs
- 5.23 OnAsset Intelligence 5.24 ORBCOMM
- 5.25 PalleTech
- 5.26 Powers International
- 5.27 Purfresh
- 5.28 Quake Global
- 5.29 Roambee
- 5.30 RSAE Labs 5.31 Samsara
- 5.32 Savi Technology
- 5.33 Sendum Wireless
- 5.34 Sensitech
- 5.35 SkyBitz (Telular)
- 5.36 Spireon
- 5.37 T24 Defence
- 5.38 Teletrac Navman
- 5.39 TGI
- 5.40 Trimble
- 5.41 Wireless Links
- 5.42 Zest Labs (Ecoark)

# 6 Rest of World solution providers

- 6.1 Arknav
- 6.2 CartaSense
- 6.3 Contguard 6.4 Ctrack (Inseego)
- 6.5 Eliron
- 6.6 Envotech
- 6.7 Globaltrack
- 6.8 Loginno Logistic Innovation
- 6.9 Pointer Telocation
- 6.10 Queclink Wireless Solutions
- 6.11 Satlock

6.15 ZIM

6.12 Starcom Systems

6.14 Tracertrak (Pivotel)

6.13 Swinnus

## **Glossary**

# About the Authors



Martin Bäckman is an IoT Analyst with a Master's degree in Industrial Engineering and Management from Chalmers University of Technology. He joined Berg Insight in 2018 and his areas of expertise include container and trailer tracking markets.

Rickard Andersson is a Senior Analyst with a Master's degree in Industrial Engineering and Management from Chalmers University of Technology. He joined Berg Insight in 2010 and his areas of expertise include fleet management for commercial vehicles and construction equipment telematics.

Berg Insight offers premier business intelligence to the telecom industry. We produce concise reports providing key facts and strategic insights about pivotal developments in our focus areas. Berg Insight also offers detailed market forecast databases and advisory services. Our vision is to be the most valuable source of intelligence for our

#### Who should buy this report?

Trailer and Cargo Container Tracking is the foremost source of information about the adoption of tracking solutions for trailers and cargo containers. Whether you are a tracking solution provider, device vendor, cargo transportation stakeholder, telecom operator, investor, consultant, or government agency, you will gain valuable insights from our in-depth research.

#### **Related products**

- Fleet Management in Europe
- Fleet Management in Australia and New Zealand
- Fleet Management in the Americas
- The Global M2M/IoT Communications Market

Order TOTHI — TO RECEIVE YOUR COPY OF TRAILER AND CARGO CONTAINER TRACKING									
You can place your order in the following alternative ways:									
1. Place your order online in a 2. Mail this order sheet to us 3. Email your order to: info@l 4. Phone us at +46 31 711 30	at: Berg Insight AB, Viktoria perginsight.com	nsight.com gatan 3, 411 25 Gothenburg, Sweden	Choose type of format  Paper copy1000 EUR PDF 1-5 user license1500 EUR PDF corporate license3000 EUR						
Family/Surname	Forename	Position	Company						
Address		Country	Postcode						
Telephone		Email							
VAT is chargeable on all orders from Sweden. Orders from all other countries in the European Union must include the buyer's VAT Registration number below in order to avoid the addition of VAT.									
Your PO number		Your VAT/TVA/IVA/BTW/MWS	T number						

Please charge my credit card  VISA Mastercard									
Card number			Expiry date (MM/YY)	CV code					
Cardholder's name		Signature							
Billing address									
Postcode	Country								
<ul><li>☐ We enclose our cheque payable to Berg Insight AB</li><li>☐ Please invoice me</li></ul>									
Signature	Date								

Reports will be dispatched once full payment has been received. For any enquiries regarding this, please contact us. Payment may be made by credit card, cheque made payable to Berg Insight AB, Viktoriagatan 3, 411 25 Gothenburg, Sweden or by direct bank transfer to Skandinaviska Enskilda Banken, 106 40 Stockholm, Sweden.

Account Holder: Berg Insight AB Account number: 5011 10 402 80 **BIC/SWIFT: ESSESESS** 

IBAN: SE92 5000 0000 0501 1104 0280

