



# EYES ON THE SEA WITH THE INTERNET OF THINGS



## Customer Profile

Royal Dirkzwager is the European leaders in providing information and communication technologies to the maritime-logistics market and has guided ships safely to harbor since 1872. Today, they track nearly 2 trillion ship locations a year for 800 maritime organizations—in real time.

## New Challenges

- Overwhelming data volumes
- Growing demand for precision ship tracking
- Increasing customer functionality requests

## Software AG Solutions

Digital Business Platform:

- Real-Time Analytics powered by Apama
- Application Integration powered by webMethods

## Key Benefits

- Increased real-time message handling from 500 to 1,500 per second
- Extended live ship tracking from 40km off-coast to global capture
- Enabled accurate, customer-accessible ship ETAs
- Reduced new service turnaround time

## Data overload to data advantage with IoT

For Royal Dirkzwager and their clients, shipping information is a way to keep their eyes on the water, so knowing where a vessel is at sea is paramount. But the world's oceans are large and tricky to monitor. Early, ship-based transponders were a solution for a simpler time, limited to communicating data only when a ship came in to port—and unable to reach further than 40km offshore. "Satellite tracking was the obvious solution," says Royal Dirkzwager CIO Ton de Jong, "but with 120,000 ships transmitting every two seconds, all the new data overloaded our system."

To cope with the continuous stream of information—and to exploit it for added functionality and reduced costs—Royal Dirkzwager turned to Software AG's Apama Analytics & Decisions Platform and webMethods Integration as part of the Software AG Digital Business Platform. And just like that, the liability of overload turned into a strategic advantage by sifting through and utilizing information to help Royal Dirkzwager's clients make better maritime logistics decisions. IoT sensor streams, smart data analytics, and in-memory architecture provided by Software AG helped capture, parse, and transmit shipping information faster and more accurately than ever before. And Royal Dirkzwager helped their clients control costs and improve safety.

*"The ability to respond quickly to client requests and roll out completely new service offerings in two months gave us a huge strategic advantage. Our team, working with Software AG's IoT platform, made it happen."*

— **Ton de Jong** | CIO, Royal Dirkzwager

## Connected shipping, for the right reasons

One of the major factors making this project such a success was the collaboration between partners who saw eye-to-eye. Royal Dirkzwager and Software AG worked jointly to conceptualize the various streams of incoming data—and build out a platform to quickly identify information that was useful, extended functionality, and improved shipping movement forecasting and in-harbor logistics. “The question is not what you might find if you could connect to and look at everything, but how to identify the right data to analyze, and how to unlock new functionality by getting that data to the right devices,” says de Jong.

“We originally turned to Software AG and Apama for the cost-cutting potential. But we were pleasantly surprised by all the other benefits the platform brought us.”

Key among those, say Royal Dirkzwager officers, was the ability to provide clients live, and continuously updated, estimated time of arrival for their ships. Before implementing Apama and other Software AG IoT solutions, such functionality would have been a major undertaking and rife with inaccuracy. “We finished the project in weeks,” says de Jong, “It’s still a little hard to believe.”

Though it might not seem like much, accurate ETAs come with a host of benefits, like better coordination with trucking companies and dock employees—lowering costs, raising asset utilization, and increasing customer satisfaction.

Customization is another major win for Royal Dirkzwager and their new platform. With Apama working in the background, the company’s clients can set their own alerts, customizing real-time messages by ship, route and tracking location. By automating this process, Royal Dirkzwager has improved their real-time message handling capability a staggering 300%, from 500 to 1,500 per second.

## IoT shines when data integrates

Where the Internet of Things and data integration meet, great things happen. And for Royal Dirkzwager and their clients, such a confluence lives in-harbor, where a ship’s early arrival can be just as costly as a delay. That’s because when a ship comes into harbor a complex choreography of services is initiated, from finding suitable tugboats and a berth, to re-fueling, unloading cargo and re-supplying fresh food and supplies for the crew. If none of the external providers are ready, an unscheduled arrival can cost tens of thousands of dollars, wiping out profits.

But with Apama Analytics & Decisions handling incoming ship movement and other IoT data streams, and webMethods Integration connecting with vendors and servicing companies, everything can be coordinated so that early arrivals can be translated into faster turnarounds. At the port of Rotterdam, Europe’s busiest, Royal Dirkzwager’s implementation of such technologies has had a profound impact already.

Best of all, the combination of IoT and integration platforms unleashes a wave of new potential functionality and services as Royal Dirkzwager and Software AG continue to work together to transform an industry nearly as old as humanity. This allows Royal Dirkzwager to offer innovative logistics products, and do so in record time. How important is that? “It’s our lifeblood,” says CIO Ton de Jong.

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### ABOUT SOFTWARE AG

The digital transformation is changing enterprise IT landscapes from inflexible application silos to modern software platform-driven IT architectures which deliver the openness, speed and agility needed to enable the digital real-time enterprise. Software AG offers the first end-to-end Digital Business Platform, based on open standards, with integration, process management, in-memory data, adaptive application development, real-time analytics and enterprise architecture management as core building blocks. The modular platform allows users to develop the next generation of application systems to build their digital future, today. With over 45 years of customer-centric innovation, Software AG is ranked as a leader in many innovative and digital technology categories. Learn more at [www.SoftwareAG.com](http://www.SoftwareAG.com).

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