



Danelec Marine and NAPA Partner to Offer Complete End-to-End Internet of Things Cloud Solution

Collaboration Removes Need for Costly Custom Interfaces, Allowing Wider Access to Valuable Performance Data and Analytics

(Birkerød, Denmark – March 6, 2018) – Danelec Marine, the manufacturer of Voyage Data Recorders (VDRs), ECDIS and ship-to-shore data solutions, has teamed up with global maritime software, services and data analysis provider NAPA to deliver a complete cloud-based Internet of Things (IoT) solution for ship performance analysis and optimization.

The new shipping IoT package combines Danelec's efficient, low-cost shipboard data collection and data transfer platform with NAPA's advanced analytics and optimization tools. The integration with DanelecConnect allows NAPA to offer its shipping customers a comprehensive turnkey IoT package encompassing numerous elements from onboard data collection to actionable ship and fleet performance analysis.

Danelec's second-generation DanelecConnect platform, which was launched last year, makes it easy for NAPA to capture data from shipboard sensors to use in their cloud-based applications thanks to the inclusion of an application programming interface (API) tool.

"This partnership with Danelec Marine eliminates one of the biggest barriers to delivering a true integrated IoT experience to ship owners, operators and charterers," said Pekka Pakkanen, Director, Development, NAPA Shipping Solutions.

"Until now, accessing timely data from ships at sea has been challenging, typically requiring bespoke shipboard data collection and processing networks with connections to hundreds of data points. Often this involves custom interfaces with older legacy equipment or slow and sometimes unreliable manual data entry by ships' personnel. This has been manageable for some big companies, but on chartered vessels, for example, the initial investment has often been too high. DanelecConnect's universal data interface and wide service network solve these problems, enabling visibility into ships' performance parameters from shore at a far lower cost. With this solution, we can add value with high-quality analytics and optimization for a much wider range of vessels, including time chartered vessels."

DanelecConnect uses a small electronic remote server that connects with the ship's VDR and other data sources. It collects and processes the desired datasets for transmission via satellite to Danelec's cloud-based server ashore. NAPA pulls this data from DanelecConnect into its NAPA Office and NAPA Ship Performance Analytics platforms. These platforms offer a wide range of business intelligence and fleet optimization services for shipping companies; including machinery monitoring, fuel efficiency and hull condition analysis. This allows users to set key performance indicators and benchmarks, and use statistical modeling to predict performance.

"Our automatic data collection package is a technology spinoff from our VDR business," said Danelec Marine CEO, Hans Ottosen. "As one of the largest suppliers of marine VDRs, we have many years of experience in interfacing with all types of data sources on ships. We're now applying that accumulated expertise to the problem of capturing data and making it available to the maritime cloud-based specialists like NAPA, so they can focus on what they do best –

providing ship operators, charterers and other maritime stakeholders with crucial data for better decision making ashore.”

“Another barrier in the past has been the high cost of ship-to-shore communications. To that end, we have designed our onboard interface to transmit data efficiently and inexpensively through narrowband satellite channels,” Ottosen said. “We can send hundreds or even thousands of accurate data samples per sensor through satellites for as little as \$1 USD per day in total satellite airtime costs.”

“In addition, our worldwide network of more than 600 certified service technicians, in more than 50 countries covering all the main seaports in the world, removes another worry for software service providers by maximizing uptime and minimizing service interruptions or delays,” Ottosen added.

Ottosen noted that IoT is growing at a head-spinning pace worldwide. A recent Gartner report predicts that 5.5 million new IoT devices will come online every day in 2018, with more than 20.8 billion connected items by 2020. While other industry sectors around the world are embracing IoT solutions as a central part of their business, the maritime market has lagged behind. By bringing together the shipboard and shoreside components in a cost-effective integrated cloud-based package, the shipping industry can now become part of the IoT revolution with far-reaching benefits across all aspects of ships, shipping and the logistics value chain of which they are a part.

The first joint NAPA/Danelec Marine IoT solution has undergone successful sea trials on a vessel, with further installations scheduled in 2018, according to the two companies.

NAPA and Danelec Marine will present the ship IoT solution at a conference sponsored by Radio Holland at the APM 2018 Exhibition in Singapore, March 14-16, 2018.

About NAPA | In its nearly 30 years of operation, NAPA has become a global leader in software, services and data analysis for the maritime industry; providing best in class data-led solutions for safety, efficiency and productivity in both ship design and operations. NAPA operates globally, with 11 offices across Asia, Europe and the Americas supported by its Helsinki headquarters. To date, NAPA has nearly 400 user organizations for its design solutions and over 2,500 installations onboard vessels. For more information, visit www.napa.fi.

About Danelec Marine | Headquartered in Denmark, Danelec Marine is a leading supplier of Voyage Data Recorders (VDRs), ship-to-shore data communication systems and Electronic Chart Display and Information Systems (ECDIS). Danelec Marine was one of the first companies to bring to market VDRs and Simplified VDRs (S-VDRs) to meet the original IMO carriage requirements. More than 6,000 vessels today are equipped with a VDR or S-VDR designed and manufactured by Danelec Marine. The company has service facilities with factory-trained personnel in more than 50 countries and Certified Service Centers at strategic locations worldwide. To learn more about the Danelec difference, visit www.danelec-marine.com.

Media Contact: Jim Rhodes, Rhodes Communications, Inc.
+1 757.451.0602, jrhodes@rhodescomm.com